THIRTEENTH NATIONAL CONGRESS
ON
RESPIRATORY DISEASES

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3 — 6 JAN 1994
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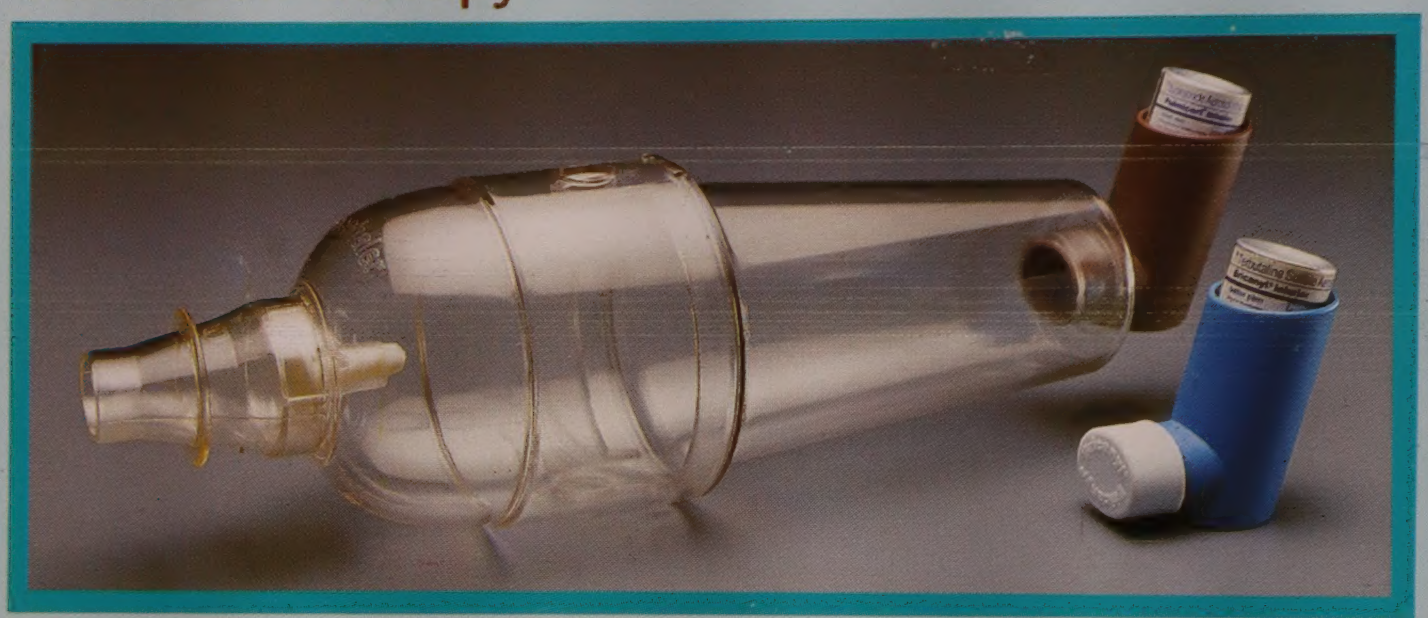

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THIRTEENTH NATIONAL CONGRESS
ON
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INDIAN CHEST SOCIETY

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Dear delegates,

Welcome to the metropolitan city of Madras, the gateway to South Indian Culture, arts and traditional hospitality which are handed down from days of yore. The climate now, is probably the best in the year. Several International Conferences on various subjects are being conducted and particularly the atmosphere is agog with cultural activities when music, dance and drama festivals are taking place is almost all parts of the city. With the deliberations of our sessions as well as such cultural background, we believe your stay will be quite enjoyable.

Such a situation might also create problems of accommodation and providing proper facilities for the esteemed delegates. We have taken every possible step to make your stay enjoyable, comfortable and useful. Yet there can be commissions and omissions on our part purely due to circumstances beyond our control. We request you to forgive and forget them and carry with you only pleasant memories.

The management of SRMC & RI have been a great source of inspiration and encouragement and without their unstinted and ready cooperation, conducting the Congress in such a scale would have been well nigh impossible. We place on record, our deep sense of gratitude for all their assistance.

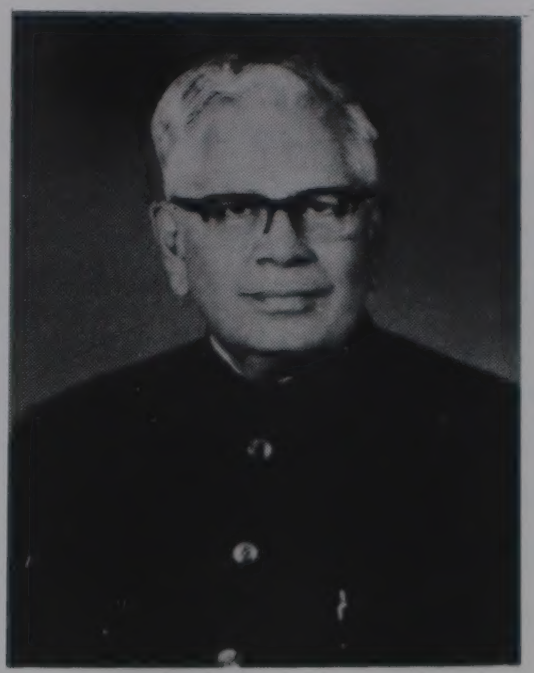
We are grateful to all our colleagues, sponsors, advertisers, press, AIR and Doordarshan for making the Congress a grand success.

WISH YOU ALL A HAPPY & PROSPEROUS NEW YEAR.

Welcome, Nalvaravu.

Dr. VIJAYALAKSHMI THANASEKARAAN
Organising Secretary.

INAUGURATION OF
THIRTEENTH NATIONAL CONGRESS
ON
RESPIRATORY DISEASES



Thiru R. Venkataraman
Former Presidentof India

Sri Ramachandra Medical College and Research Institute

Porur, Madras - 600 116.

Dr. T.K. Partha Sarathy, FRCS(C), FACS.,
Diplomat of the American Board of Surgery,
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Res : 6263194

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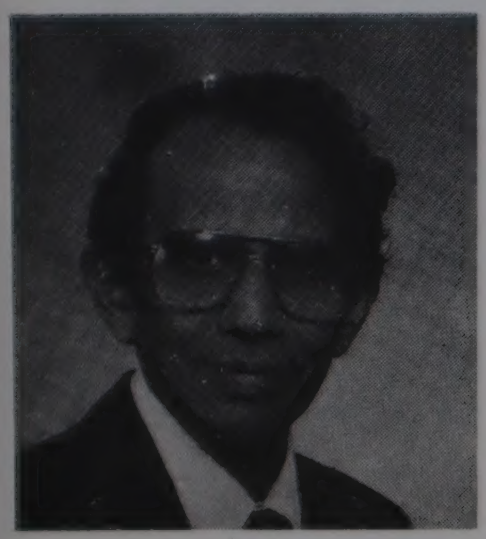
18th December '93



It is indeed a privilege to have the prestigious 13th National Congress on Respiratory Diseases, 1994 in Madras at the premises of Sri Ramachandra Medical College and Research Institute, Porur, Madras - 116. The Indian Chest Society know for its enormous contribution to the health of our community have taken extraordinary steps in organising this meet. I appreciate the tenacity exhibited by the organisers and the various committees who have worked closely with them and I congratulate them on their achievement. The position papers that the society will place before the delegates will have far reaching influence in protecting the health of our people.

While welcoming the delegates to our venue I wish them a very enjoyable time in their stay in our midst and in their scientific deliberations.

T.K. PARTHA SARATHY

Sri Ramachandra Medical College and Research Institute

Porur, Madras - 600 116.

Dr. D. Gnanaprakasam, MS., FICS, FIAP
DEAN,
Professor & HOD of Surgery

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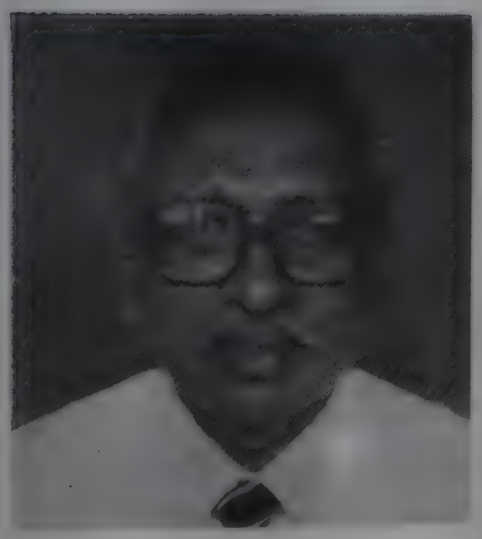
MESSAGE



Chest Diseases are the commonest disorders that affects the human race today. India as it rapidly advances into the 21st century by accelerated industrial development, the incidence of Environmental and Occupational Lung Diseases besides the chronic Infectious Diseases is bound to increase. The 13th National Congress on Respiratory Diseases being held from 4th January to 6th January'94 is addressing these problems and evolving ideal strategies, appropriate protocols for management of and prevention of these emerging diseases. The guidelines recommended at this Conference, I hope will form the frame work for future strategies.

I wish the Conference all success.

DR. D. GNANAPRAKASAM
Dean.

Dr. A. RAMANATH
CHAIRMAN
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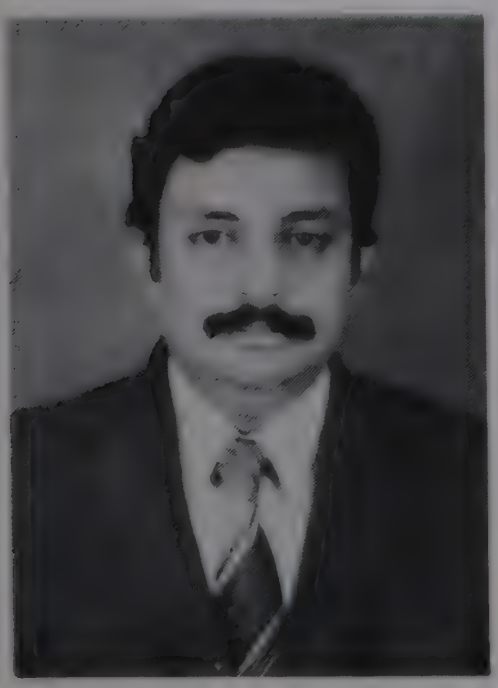

Dear Friends,

Thank you, and Welcome.

Any Souvenir reflects the theme of the proposed conference and it is also one of the main sources of income for successful conduct of the same.

The abstracts from various authors in this Souvenir represent the status of and advances in the field of Respiratory problems.

It is a great joy to give a concrete shape to the abstract thinking of the various scientists. And our task is made easier by the authors themselves, and our thanks to them.

The Seriousness of the Scientific contents is intermingled here with lighter advertisements which infact gives life to the Souvenir. It is our duty to acknowledge the enthusiasm shown by various sponsors.

Warm Regards.

Dr. A. Ramanath

Thirteenth National Congress on Respiratory Diseases

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Indian Chest Society

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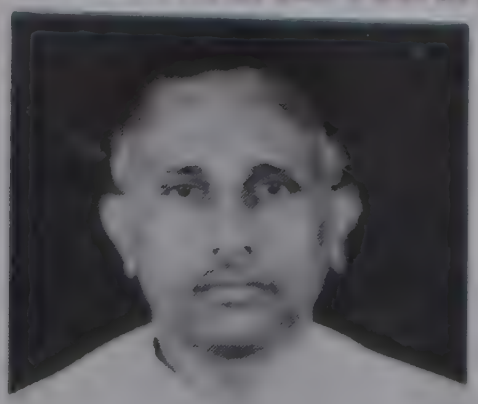


President
Indian Chest Society

Respected chief guest, distinguished visitors and friends. It gives me great pleasure to deliver the presidential address of the Indian Chest Society during this XIII National Congress. The Indian Chest Society is a growing organization with a mission. The mission of social transformation requiring the understanding or interaction between atmospheric air pollution and smoking. India today is on the threshold of major economic and social change but still remains a country of great contrast with a significant percentage of population below the so called poverty line. We have made great strides since political independence but have to attain in larger measure cultural independence. In this world economic interdependence is essential, but the basic services of food, shelter, health and education should be largely locally created and managed.

The vast infrastructure of health care facilities is not evenly distributed in the country. There is an uneven distribution of concentrated hi-technology modern medical care in large cities and relative under-employment and unemployment MBBS, Graduates in the very same cities. The indigenous system of medicare are cost effective, much less productive of side effects and are culturally attuned to the peoples of this ancient land. Our people should pay greater attention to the need for developing, modernising these systems for better documentation of the role in health and sickness care. The Indian Council of Medical Research, the Government of India and the Government of Tamil Nadu are taking steps to scientifically study the role of traditional remedies in such disorders as Bronchial Asthma, Hepatitis, Rheumatoid disease and Anal fistulae. I am happy to report that the government of Tamil Nadu have initiated a study on the role of Siddha drugs in HIV disease.

Members of Indian Chest Society are studying the emerging pandemic of this great waster and its deadly combination with tuberculosis. It is most unfortunate that tuberculosis continues to take heavy toll of productive lives. The mortality per year is around 500,000 and there is a real danger of spread of multidrug resistant tuberculosis Bacilli in our country. The official Journal of this society which is published from the city of Madras has documented an increasing trend of resistance of the bacteria to the commonly used drugs of Isoniazid, Ethambutol, Rifampicin and even pyrazinamide from Rothak in Haryana to Tuticorin in Tamil Nadu. Tuberculosis is an excellent indicator of this socio economic status of the population. India can hold its head high only when the rate of tuberculosis begins to climb down. The members of the society are willing to lend their services to the Government in formulating meaningful strategies and removing from the approved drugs such useless drugs like Thiacetazone.

Having identified Tuberculosis, Bronchial Asthma, Chronic Bronchitis, Emphysema, HIV Disease, Lung Cancer and Tobacco epidemic the society is now formulating its official recommendations which will be delivered to the people, the Practitioners and the Authorities so that meaningful strategies can be developed to mitigate the ill effects of these disorders. The society is also formulating its recommendations on the norms for lung capacity estimation applicable to the whole country. There will also be recommendations on the application of Yoga to Lung health.

The recommendations on tobacco control have to be accompanied by a strategy for inculcating in the syllabi of primary and secondary schools, formulated plans for legislation to control smoking in public places, finding alternate crops for tobacco, alternate employment for beedi workers as well as a social transformation to make smoking as an unsocial and antisocial act. The members of the Indian Chest Society invite the members of the public to offer their suggestions for improving the delivery of lung health care in our country.

The consumer protection act has created large conflicts in various sections of the medical profession with the majority opinion opposing the application of these provisions in medical service. Personally, I welcome the opportunity for the profession to be integrated with general citizens care services, but I must warn the enthusiast about the dangers of litigation approach which has completely altered the practice of medical profession in USA. In India it is a tradition to respect all professions and the art and science of medical practice will flourish only in an atmosphere of trust and mutual understanding. It is a duty of my colleagues to inform their patients as fully as possible and to involve the members of the family in the decision making regarding health and sickness care.

Let the people of this country resolve to unite in identifying an Indian way of improving the socio economic standards of our people which will bring in its wake control of Tuberculosis, Malnutrition and Premature deaths. A freedom from air pollution, tobacco smoke will let our lungs breath free once more. Breathing is the basis of life..

Thanking you,

C.N.DEIVANAYAGAM,
Madras.

INCEPTION OF INDIAN CHEST SOCIETY

Dr. A.A. Mahashur, Hon.Secretary, Indian Chest Society.

Pulmonary Tuberculosis is a disorder which is prevalent in the country for several centuries. However, with the rapid industrialisation after Independence, the environmental pollution and the diseases related to the pollution started increasing in number. We were much engrossed in diagnosing and treating Tuberculosis, though there was very little awareness, time and knowledge amongst Chest Physicians in general to devote time to the concerns of non-Tuberculosis disorders, though there have been centres in the country which were involved in the management of non-Tuberculous Respiratory Diseases. The ideas were vague. In order to bring all the Chest Physicians in the country together, it was decided to form an organisation which could work for the causes of Respiratory Diseases through its academic and Scientific Activities. With these ideas in mind, a thought of forming Indian Chest Society was conceived by the prominent Chest Physicians all over the country in 1979. The sole purpose of forming this democratic body was to underline the increasing incidence of diseases due to environmental, and industrial pollution and pulmonary disorders other than Tuberculosis. The response that the Indian Chest Society received was overwhelming because there was no such Organisations which were working or such a cause. The body has been registered as a society with headquarters at KEK Hospital, Bombay. The membership of the Indian Chest Society keep on multiplying and today we have around 350 life members, 100 Ordinary members and 35 Associate members. Indian Chest Society has multivarious scientific activities. The major one being the yearly National Congress which are sponsored by the Indian Chest Society. These conferences project Research work going on in all corners of the country and also discusses recent advances on Respiratory Diseases and also formulates the policy and guidelines about the management of various respiratory disorders. These Congresses are usually attended by leading Chest Physicians all over the country and prominent faculty members from abroad. This year the conference is being held in Madras. The conference has already been successful in North, South, East and West before and over the last 14 years the Indian Chest Society has come to be recognised as a very constructive Society dealing with causes of Respiratory Disorders. Other activities of Indian Chest Society involved the multiple chapters in major cities under the banner of Indian Chest Society which holds the clinical meetings and symposia from time to time. The Indian Chest Society publishes the quarterly journal 'Lung India' Thanks to the tiredless efforts of Dr.C.V.Ramkrishnan and Dr.C.N.Deivanayagam. Today the journal is read by all the members of the Indian Chest Society and also occupies an important place in the Library of leading Institutes throughout the country. The Journal publishes the scientific materials of high quality and is appreciated by all the specialists in India and abroad. We have an International editorial board to the growth of the journal. The first issue was released on Independence day 1982. We are continuing to make the efforts to further improve the quality of the Journal. The Indian Chest Society would continue to grow and would also affiliate itself with the pulmonologists in U.S.A to have a healthy exchange programme to share views & ideas of people in India and abroad to develop the speciality in our country. This proposition has received a wide approval in India and in U.S.A and the efforts are on by Dr.Rohini Chowgule to see that this ideas materialises soon. It is my earnest request to all the members of the Indian Chest Society to take active interest in the working of the Society and offer suggestions for improvement of the society. It is also been proposed to exchange junior staff members and PG students under the banner of Indian Chest Society to the prominent department of Chest Medicine within the country to have a better exposure and an hand on experience about diagnosing and managing all types of Respiratory Disorders.

INDIAN CHEST SOCIETY LIST OF CONFERENCES

No.	YEAR & DATE	CITY & VENUE	ORGANISING SECRETARY	PRESIDENT
I NCRD	Sep. 5th-7th 1981	BOMBAY Hotel President	Dr. S.R. KAMAT	Dr. SUNDARI MIRCHANDANI
II NCRD	Dec. 2nd-4th 1982	BOMBAY Hotel Taj	Dr. P.G. KAMATH	Dr. C.V. RAMAKRISHNAN
III NCRD	Dec. 15th-17 1983	MADRAS Holiday Inn Adayar Gate	Dr. C.N. DEIVANAYAGAM	Dr. KEVAL KRISHNA
IV NCRD	Dec. 6th-9th 1984	TRIVANDRUM Kanakakannu Palace	Dr. P. RAVINDRAN	Dr. SAMIR K. GUPTA
V NCRD	Dec. 12th-15th 1985	JAIPUR S.M.S. Medical College	Dr. U.S. MATHUR	Dr. J.C.KOTHARI, DR. P.S. SHANKAR
VI NCRD	Dec. 12-14 1986	Bombay Hotel President	S.S. VIRDI	Dr. K.G. YEDURAPPA
VII NCRD	Dec. 17-20 1987	CALCUTTA Park Hotel	Dr. S.K. SHARMA	Dr. K.C. MOHANTY
VIII NCRD	Dec. 5th-7th 1989	GOA Medical College	Dr. A.S. BAGGA	Dr. K.J.R. MURTHY
IX NCRD	Dec. 17th-20 1989	HYDERABAD Osmania Medical College	Dr. C. SRINIVASA RAO	Dr. P.G. KAMATH
X NCRD	Dec. 12th-15th 1990	Bombay KEM Hospital Seth G.S. Medical	Dr. A.A. MAHASHUR	Dr. A.S. BAGGA
XI NCRD	Feb. 20th-22 1992	CALCUTTA Hotel Malapar Palace	Dr. K.P. GOVINDAN	Dr. D.D.S. KULATHI
XII NCRD	March 14-16 1993	NEW DELHI Hotel Claridges	Dr. O.P. SHARMA	Dr. U.S. MATHUR
XIII NCRD	Jan. 4th-6th 1994	MADRAS Sri Ramachandra Medical College & Research Institute	Dr. VIJAYALAKSHMI THANASEKARAAN	Dr. C.N. DEIVANAYAGAM

AN AUTOBIOGRAPHY OF TUBERCLE BACILLUS

Like any other microbe, I have been floating in the environment from time immemorial and whenever I get a suitable shelter in a human or animal body I settle down quietly. I wait for an opportune moment and start multiplying and enlarging my species, of courses at the expense of my host. No one knew of my existence, until Robert Koch, a German Scientist, first identified me in the year 1882 and pronounced to the world that I am the culprit for causing the Killer disease called "Tuberculosis".

I can penetrate every tissue on organ in the body of a human or animal host and cause severe damage. For the sake of my survival I have to destroy others. To settle down comfortably, I have a predilection for the spongy lung tissue or the soft lymph nodes. I am capable of attaching myself to the hard bony tissue as well as the delicate covering of the brain. I lead a parasitic existence eroding the soil where I am lodged in an ubiquitous manner. In the lung I create cavities and interfere in man's normal respiratory functions. Sometimes I cause accumulation of fluid or pus within the layers of membranes covering the lungs. When I take shelter in the lymph nodes, I cause their disfigurement by swelling. When I attack the back bones it results in the development of hunchback. When I settle down in the Kidneys I cause urinary problems. I don't spare any organ in the human body. In infants and children I prefer the lymphoid tissue to start any activities.

I cannot tolerate sunlight and I am morally afraid of fire and high temperature. If the defence mechanism of my host is strong and efficient, I lead a symbiotic existence with him limiting my spread inside his system. After getting myself lodged inside the tissues of my human host, I can remain dormant even for three decades before I display my valour once again by producing cognizable disease. Even in economically affluent countries which had claimed to have anhilated me, I have been able to raise my head once again among those suffering from acquired immune deficiency syndrome. I generally bow down before powerful and lethal drugs that are used against me. Sometimes they throttle and prevent any further growth and at other times they kill me in toto. My natural tendency is to overcome the onslaught of the chemical and biological agents and put up a stiff resistance. Hardly less than 1% of my clan shows denovo resistance to drugs and we are called "wild strains". The drug resistance members of our family multiply in large numbers with amazing rapidity 13 to 35 thousand times depending upon the drug used against us. Large cavities in the human lungs are the chosen sites for our maximum procreation. I have defied and survived more than 111 years since my discovery by Robert Koch inspite of the elaborate efforts taken by man to destroy me.

I do not know any ancestors, but I belong to a big family of Mycobacterial species among whom I occupy the prime position. My close cousin mycobacterium lepre is responsible for producing the disease known as leprosy. He lodges himself particularly in the skin and nervous tissue of the host in the bargain causing extensive damage to the host by eating his fingers & toes. I am generally referred to as Mycobacterium Tuberculosis Var Horminis or human tuberclebacillus (Kochs bacillus). I also have a kid brother Myco-Bovis, but he does not cross my path. He confines his activities by taking shelter in the cattle and manage to proliferate his clan through milk. So his sphere of activity is limited. With milk being heated before consumption, his survival is in jeopardy. There are other members of my family like Mycobacterium Aviam complex who attack the birds primarily, but can attack humans too to find a suitable place for their multiplication. I reproduce in an average of 18 to 24 hours with extremes ranging from a few as 12 hours to as long as several days. I have a pretty thick lipid containing coat of armour called "mycol" which is impervious to most of the disinfectants. I detest alcohol and acids and hence I am described as "acid-fast bacillus". The acid fastness may vary considerably, particularly with young bacilli with various media and biological agents. For my growth I need oxygen and exposure to some carbon dioxide besides nitrogen and

some minerals. For this reason I chose the pulmonary tissue for my habitat. I don't need a sex partner for reproduction. I usually multiply by single step or multiple step mutation. Cavities in lungs are the locations where I thrive in abundance. In my metabolic activity numerous enzymes like proteinase, peptidase, nuclease, amidase, catalase etc have been known to play a part. My chemical structure considerably varies with the strain, age, and other factors. The lipid constituents include phosphatides, fats, wax, lipids and lipopolysaccharides. The proteins include nucleo protein, lipoprotein, nucleic acid and amino-acids. The proteins in me are responsible for eliciting tuberculin reaction, When I have once entered a subject. The carbohydrate moiety in me are concerned in the immunologic reactions and production of cellular response after my entry into the host.

Like the Scarlet Pimpernal, I am very elusive living being. I am here, I am there, I am every where and I am not visible to the naked eye. However, a keen persevering microscopist can always spot me under the objective of the instrument as beautiful pink rods or dots or chains or Ziehl-Neelsen stained slide or as luminous glittering rods on a fleurecent stained slide. Occasionally I am visible as cluster dots, when I am called "Much granules". I grow very rapidly inside a vulnerable host but take a very long time. (6-8 weeks) to grow on an artificial medium. A couple of scientists have claimed that my growth can be speeded up. I need salts of different kind, potato, egg and other ingredients for my growth. In other words, I can be cultured on artificial media and show myself up as beautiful flowery colonies of textures varying from smooth to rough. Sometimes I appear very colourful on growing and I am referred to as "Yellow bacillus". Rarely like a chamelon, I change colour with exposure to sunlight or darkness. I am then called a "Photochromogen" or a "Scotochromogen".

I can remain virulent throughout life or can be rendered avirulant by passage through repeated sub-cultures. There is one such example in my family called Bacillus calmette-guerin (BCG) who by 250 passages had his powers drastically cut that he had lost his virulence to produce fatal disease in cattle, monkeys, guineapigs and rabbits. Infact he (BCG) is now being used as a preventive tool for infants and children against their getting tuberculous disease.

I am invariably airborne and transport myself from a diseased person to another uninfected individual. Those who harbour, billions and billions of my kith and kin cough up as many as 100 million of them per day. All those who take me in get infected, but all those infected do not develop manifest disease. Whenever I seek human shelter, I do not differentiate between rich and poor. It is immaterial to me whether they live in urban dwellings or in rural set ups. But those living in congested and over crowded environment are more congeneal for lodging myself.

I am seldom transported by the genes from the other to offspring. Occasionally I do travel from the placenta through the umbilical cord into the foetal circulation or find my way from the amniotic fluid of the foetus into the lungs through the eustacian canal. But such passages are extremely rare.

Man continuously attempts to destroy me and my clan but who will succeed in the final battle still remains an open question. I am worried that newer innovations in Medicine, Pharmaceuticals & Biotechnology may prove a threat to our existence. Man prays that our tribe should not increase. We however strive hard to survive.

XIII NATIONAL CONGRESS ON RESPIRATORY DISEASES

January 3rd-6th, 1994

SRI RAMACHANDRA MEDICAL COLLEGE AND RESEARCH INSTITUTE,

PORUR, MADRAS 600 116

PROGRAMME

Registration	:	2.1.94 2.00 PM Onwards
C.M.E. Programme	:	3.1.94 8.00 AM - 4.30 PM
Venue	:	Pathology Lecture Hall (II Floor)
General Body Meeting	:	3.1.94 5.00 PM
Venue	:	Microbiology Lecture Hall (III Floor)
Inauguration of the Congress	:	3.1.94 6.00 PM
Governing Council Meeting	:	3.1.94 7.00 PM - 7.30 PM
Venue	:	Conference Hall (I floor)

SCIENTIFIC SESSIONS

FIRST DAY: 4.1.94: TUESDAY

8.00-9.00AM: MEET THE EXPERTS:

I. Dr. R.C. Bhasin, New Delhi
"Bedside Evaluation of Respiratory Failure
Venue: (Hospital Block - IV floor - I.C.U)

II. Dr. R. Ravindran, Trivandrum
Dr. M. Joshi, Trivandrum
Dr. C.S. Ghosh, Trivandrum

"Research Methodology in Medicine"

Venue : Examination Hall (III floor)

SESSION: I

9.00-10.30AM **FREE PAPERS**

BRONCHIAL ASTHMA I

CHAIRPERSONS: DR .P. RAVINDRAN, DR. VIRENDRA SINGH, DR. K. HARANATH

1. Asthma Prevalence in Bombay City (Preliminary Findings)
Rohini V. Chowgule, V.M. Shetye, J.R. Parmar, Bombay
2. Trends in Asthma management.
Sunil V. Shah, Bombay
3. Azelastine tablets in Atopic Bronchial Asthma
K. Suguna, M. Santhanakrishnan, C.N. Deivanayagam, Madras.
4. Comparison of Efficacy of Two Doses of Disodium Cromoglycate in The Management of Bronchial Asthma
R. premanand, P. Subba Rao, G. Venkataramana, M. Gangadhara Reddy, Tirupati
5. Inhalation Corticosteriods for Bronchial Hyper - Reactivity in Bronchial Asthma
Ramesh Chander Bhasin, New Delhi
6. Standardization of Methacholine Challenge Test its Sensitivity and Specificity
Vasant M. Shetye, Rohini V. Chowgule, J.R. Parmar, Bombay.
7. Socio-Economic Factors affecting Compliance of Inhaler Therapy in Asthma
Rajinder Singh Bedi, Patiala.

8. Study of Methotrexate in Bronchial Asthma
R. Narasimhan, Madras

9. Importance of Preventive Measures in Extrinsic Bronchial Asthma
H.G.Varudkar, C.G. Shetty, S.V. Nagarkar, Pune.

10.30-10.45 AM: COFFEE

SESSION: II

10.45 AM - 12.15 PM: **FREE PAPERS**
BRONCHOSCOPY AND PULMONARY NEOPLASM

CHAIRPERSONS: DR. V.K. ARORA, DR. R. PARAMASIVAM, DR. RAJAN SANTHOSAM

10. Fibrescopy Sans Transnasal Anesthetics and Premedication
P.V.P. Rao, M.V.V.S. Murthy, Manipal

11. Adenosine Deaminase Activity in Balf and Sera in Patients with Roentgenographic Lung Opacities
U.S. Mathur, Navin David Sen, Virendra Singh, P. Dhaka, Ashok Gupta, Jaipur

12. Study of Differential Leucocyte Count of Bronchoalveolar Lavage Fluid in Idiopathic pulmonary fibrosis and its relationship with prednisolone treatment
S.C. Matah, J.K. Samaria, Sudhir Kumar, T.K. Lahiri, N.C. Arya, N.B. Singh, Varanasi

13. Paediatric Bronchoscopy
K. Lakshmanan, Madras.

14. Analysis of Bronchial Malignancy in Fibreoptic Endoscopy in 1993
T.G. Manickam, Madras.

15. Role of Transbronchial Needle Aspiration in Routine Fibreoptic Bronchoscopy.
Rakesh Bhargava, M.V. Rabbini, S.K.Md. Yakub, Ansar A.Khan, Aligarh.

16. Transbronchial Lung Biopsy - An Analysis
Raj B. Singh, Madras.

17. Comparison of Bronchoalveolar Lavage fluid malignant cytology with percutaneous Lung Biopsy in Peripheral Lung Cancer Patients.
S.C. Matah, J.K. Samaria, Sudhir Kumar, T.K. Lahiri, N.C. Arya, Mukesh Singh, Varanasi.

18. Pattern of Lung Cancer in Northern Kerala - A Retrospective study
C. Ravindran, T.P. Rajagopal, S. Venkatasubramanian, N.V.U. Warrier, Calicut

19. Fibreoptic Bronchoscopy in 100 cases of Haemoptysis an analysis.
N. Sankaran, Tirunelveli.

12.15-1.00 pm: **ICS ORATION**
PULMONARY NUCLEAR MEDICINE DR. R.D. LELE

CHAIRPERSONS: DR. P.G. KAMATH, DR. K.J.R. MURTHY

1.00-2.00PM LUNCH

SESSION: III

2.00-2.45 PM **FREE PAPERS**

ASSORTED PAPERS CHAIRPERSONS DR. P.V.P. RAO, DR. T. VEERARGHVAN, DR. PILLAI

20. Pefloxacin in the Treatment of Nosocomial respiratory Tract Infections.
S.K. Rajan, A.A. Mahashur, S.K. Bowalekar, Bombay

21. Use of High Resolution computed Tomography (HRCT) in Lung Parenchymal Diseases
Meher C. Dadachanji, Rohini V. Chowgule, Bombay.

22. Role of Computerised Tomography in Diagnosis of mediastinal lesions
Ajit Bhaskar, K.M. Rameshchander babu, V. Achuthan, K.P. Govindan, N.V.U. Warier, Calicut

23. Conservative Management of pulmonary Arteriovenous Fistula
Vijaya M. Nayak, Solmon Victor, Madras.

24. Guillain Barre-Syndrome and mechanical ventilation
Gnanmuthu, Debidas Ray, Vellore.

25. Seasonal Variation in Respiratory Diseases
K.C. Mohanty, Bombay

2.45-3.30 pm	**YASHODHARA MEMORIAL GUEST LECTURE** CLINICAL APPROACH TO ALLERGY & ASTHMA, DR. P. RAVINDRAN - TRIVNDRUM
CHAIRPERSONS	DR. A.A. MAHASHUR, DR. K.C. MOHANTY, DR. V. THIYAGARAJAN
3.30-3.45 pm	TEA
SESSION: IV	
3.45-5.00PM	**SYMPOSIUM ON COPD**
MODERATOR	DR. DEBIDAS RAY
AETIOPATHOGENESIS	DR. S.K. JINDAL
CLINICAL DIAGNOSIS	DR. OM PRAKASH
PULMONARY FUNCTION PARAMETERS	DR. V.K. VIJAYAN
THERAPY OF COPD	DR RAJ B. SINGH
ROLE OF VENTILATORY SUPPORT IN COPD	DR. RAM RAJAGOPALAN
NUTRITION AND REHABILITATION	DR. C.N. DEIVANAYAGAM
5.15-5.45	EDITORIAL BOARD OF LUNG INDIA - MEETING VENUE PHARMACOLOGY LECTURE HALL
5.00-6.00PM	OPTIONAL VISIT TO SRMC & RI
6.30-7.30PM	KARAGATTAM/KAVADIATTAM
8.00PM	DINNER

SECOND DAY:	5.1.94 WEDNESDAY
8.00-900AM:	**MEET THE EXPERTS** I. WHAT IS NEW IN ASTHMA? DR. OM PRAKASH VENUE : LECTURE HALL VI II. FIBREOPTIC BRONCHOSCOPY LIVE DEMONSTRATION DR. RAJ B. SINGH DR. RAJAN SANTHOSAM VENUE : BRONCHOSCOPY ROOM III. PULMONRY FUNCTION TEST DEMONSTRATION DR. V.K.VIJAYAN VENUE : PFT ROOM

SESSION:V

9.00-10.30 AM: **FREE PAPERS**
CARDIO-PULMONARY FUNCTIONAL ASSESSMENT

CHAIRPERSONS: DR. DHIMAN GANGULY, DR. V.K. VIJAYAN, DR. SANDHYA NANJUDIAH

26. Pulmonary Diffusing Capacity in Left Ventricular Dysfunction
V. Singh, U.S. Mathur, S. Mittal, U.K. Gupta, Jaipur.

27. Estimation of Total Lung Capacity - Comparison of Radiologic And Body Plethysmographic methods.
P.M. Venkata Sai, S. Arunkumar, V. Sivasubramanian, J.D. Roy Santhosam, B. Sridhar, R. Natarajan, U. Krishna Rao, Madras.

28. Effects of Lung Function in Spinal Deformities
V. Thiagarajan, N. Muthukumarasamy, Thanjavur

29. Correlation of ECG, 2D ECHO and ABG Analysis in 50 cases of Cor-pulmonale
Rajesh Natvarlal Solanki, D.R. Patel, S.B. Tripathi, Ahmedabad.

30. Lung Function Changes in Mitral Stenosis
V. Thiagarajan, N. Muthukumarasamy, Thanjavur.

31. Spirometric studies in Tropical Pulmonary Eosinophilia Before and After Treatment with Dimethyl Carbamazine
K.K. Praveen, B.H. Krishna Murthy Rao, Mangalore.

32. Reversibility of Small Airway Obstruction in Asthma and Copd.
B. Jayakrishnan, Ranjana K. Jayapal, Coimbatore.

33. Peak Expiratory Flow Rate in Low Socio-Economic School Children - A Pilot study
Sai Praveen, Sai Prasanth, K. Haranath, Madras.

34. Effects of obesity on Lung function
V. Thiagarajan, N. Muthukumarasamy, Thanjavur

10.30-10.45 AM COFFEE

SESSION: VI

10.45-11.20 AM **FREE PAPERS**
PULMONARY TUBERCULOSIS

CHAIRPERSONS DR. V. RANGASWAMY, DR. C. SRINIVASA RAO, DR. V. SIVARAMAN

35. Bronchoalveolar Lavage studies in smear negative pulmonary tuberculosis
V.K. Vijayan, Madras.

36. Tuberculosis - Bronchoscopy and Chest X-Ray Correlation
Sandhya Nanjundiah, Bangalore.

37. Management of Pulmonary tuberculosis patients who failed on short course Chemotherapy with Bacilli Resistant to Streptomycin, Isoniazid and Rifampicin
Paulin Joseph, R.Balambal, N. Raghuraman, C.N. Paramasivan, R. Prabhakar, Madras

38. Early Recognition of Bronchogenic Carcinoma Complicating Pulmonary Tuberculosis in Old Age Group.
Ascharajlal Anand, Amargadh, Gujarat.

39. Risk Factors for severe diseases in Pulmonary Tuberwlosis
J. Balachandran, M. Joshi, P. Ravindran, P. Sundaram, C.S. Gosh, R. Jose Ray, K. Anitha kumari, Kumari Indira Trivandrum.

11.20-12.15pm

FREE PAPERS

HIV AND RESPIRATORY DISEASES

CHAIRPERSONS DR. K.P. GOVINDAN, DR. A. KADIRESAN, DR. A.S. NATARAJAN

40. Changing Trend of HIV infection in Tuberculosis and pulmonary diseases since 1988 at Bombay
K.C. Mohanty, Bombay

41. Association of HIV infection and respiratory Diseases including Tuberculosis.
A.S. Bagga, A.M. Mesquita, Durga Lawande, A. Lamartine Da Costa, Mangala Verenkar, Goa

42. Time Trend of HIV and Respiratory Diseases in Pondicherry -A Clinico Radiological profile.
V. Sivaraman, Venkateswaralu, Parimala Bai, Angamuthu Gurumurthy, Pondicherry.

43. Association of HIV and respiratory Diseases in Pondicherry -A Clinico Radiological Profile.
V.K. Arora, K. Gowrinath, Amit Johri, Pondicherry.

44. Period Prevalence of HIV infection in hospitalised tuberculosis patients.
P. Ravindran, M. Joshi, R. Jose Raj, Kavitha Rajan, B. Jayaprakash, Trivandrum

45. Role of Siddha Drugs in HIV & Tuberculosis
N.Kannan, C. Chandrasekar, D. Selvaraj, C.N. Deivanayagam, Madras.

12.15-1.00 pm

NCRD ORATION

WHO IS AFRAID OF HUMAN IMMUNODEFICIENCY VIRUS?

DR. JACOB JOHN, VELLORE.

CHAIRPERSONS DR. A.S. BAGGA, DR. K. JAGANNATH, DR. JAYAKAR PAUL

1.00-2.00pm LUNCH

SESSION : VII

2.00-2.45PM

FREE PAPERS

ASSORTED PAPERS

CHAIRPERSONS DR. S.C. MATAH, DR. R. PREMANAND, DR. SYED AMEEN AHMED

46. COPD and kitchen Education
R.S. Bhatia, S.S. Sibia H.K. Sibia, Ludhiana

47. Management of 15 cases of Tracheal stenosis
Rajan Santhosam, R.K. Sasankh Ranjan B. Singh, B. Chandrasekar, K.K. Ramalingam, S. Vasudevan, B. Krishna Rau Madras.

48. A.R.D.S. An early clinical Recognition is a Rewarding Aid
K. Haranath, R.K. Hariharan, Sai Praveen, Madras

49. Disseminated Tuberculosis in Children-An Experience with Surgical Management
G.Ganapathy, H.R. Shanbhogue, T. Pandurangan, Madras

50. Calcification of Pericardium in Health Patient - Case Report
Asha Moorthy, S. Chandrasekaran, T. Veeraraghavan, Syed Ameen Ahmed, V. Gurumoorthy, Madras

51. Pleural Tuberculoma
P. Moorthy, K. Rangarajan, SMRG-Krishnamoorthy, Madras

2.45-3.30pm

GUEST LECTURE

Current trends in Pulmonary Mycology with special emphasis on the importance of Mycoses complicating TB & HIV Diseases.

Dr. L.N. Mohapatra, Bhubaneswar.

CHAIRPERSONS DR. K.V. THIRUVENGADAM, DR. U.S. MATHUR

3.30-3.45pm TEA

SESSION VIII

3.45-500 **POSITION PAPERS**

MODERATORS DR. U.S. MATHUR, DR. C.N. DEIVANAYAGAM, DR. A.A. MAHASHUR

5.00PM-5.30PM GOVERNING COUNCIL MEETING

5.30PM GENERAL BODY MEETING

8.00PM BANQUET

VENUE: HOTEL SAVERA

THIRD DAY: 6.1.1994 THURSDAY

7.50-8.20 AM X-RAY QUIZ DR.G.RAVINDRA BABU
VENUE : PHARMACOLOGY LECTURE HALL (3RD FLOOR)

SESSION IX **"AWARD SESSION"**

CHAIRPERSONS DR. ROHINI V. CHOWGULE, DR. S. SURENDRANATH, DR. S. CHANDRASEKARAN

52. Sleep Apnoea Syndrome - "an Indian Experience"
H.S. Hira, New Delhi

53. Effect of Fibreoptic Bronchoscopy on Pulmonary Function
Gajanan Gaude, H.B. Rajasekhar, Belgaum.

54. Etiopathogenesis of Asthma-changing concepts
T.P. Ashok, N. Somu, D. Vijayasekharan, T.L. Rathnakumari, L. Subramaniyam A. Chandrabhushanam, Madras

55. Pulmonary Manifestations of Choriocarcinoma
Matah Manjari, SC Matah, JK Samaria, Varanasi.

56. HIV & Respiratory Disease
S. Devanathan, U. Krishna Rao, Vijayalakshmi Thanasekaraan, Madras

57. Uncontrolled trial of Ciprofloxcacin in retreatment of Pulmonary Tuberculosis.
Sukesh Rao, Udipi

58. Prevalence of Mycoses in sputum & Nose cultures of Immunosuppressed individuals.
Saipraveen, Syed Saifudden M Razvi, T.S. Vijayalakshmi, Halen P.S. Manuel, Madras

59. Allergic Broncho Pulmonary Aspergillosis: Review of 20 cases
Rajinder Singh Bedi, Patiala.

60. An Experience with Blind Pleural Biopsy using A Trucut Needle in Moderate to Large Pleural Effusions
D.J. Christopher, J.V. Peter, A.M. Cherian, Vellore

61. PEFR and FEVI is the Best effort Same?
B. Jayakrishnan, Ranjana K. Jayapal, Anil C. Mathew, Coimbatore.

62. Effect of positional precautions on the incidence of Pneumothorax in FNAC of the lung.
N. Gunasekaran, A.S. Natarajan. A. Rathinasapapathy, A. Sundaramoorthy Madras

63. Fibreoptic Bronchoscope in 24 patients presenting with Hemoptysis with Normal Chest X-Ray
R.K. Sharma, M.A. Desai, M.S. Sahasrabudhe, U.N. Desai, Bombay.

64. Retrieval of Broken Angio-Gatherer From pulmonary Artery with the Help of Bronchoscope Basket.
Amir M. Khoja, J.S. Hiremath, C.N. Makhale, G.M. Shah, Pune.

65. Comparison of 6 Progressively Simpler Methods for Maximum Expiratory flow rate evaluation
S. Dinesh, A. Sundramoorthy, L. Gajalakshmi, A.S. Natarajan, Madras.

10.30-10.45AM — COFFEE

SESSION X

10.45-11.30 — **GUEST LECTURE**

PULMONARY IMAGING
DR. ARCOT GAJARAJ, MADRAS

CHAIRPERSONS — DR.C.N. DEIVANAYAGAM, DR. A.M. SELVARAJ, DR. K.V. SOMASUNDARAM

11.30-12.30PM — **FREE PAPERS**
RESPIRATORY DISORDERS IN CHILDREN

CHAIRPERSONS — DR. M.B. RAGHU, DR.N.SOMU, DR. VIDHYASAGAR

66. Lung Function in normal Indian Children
Vasant M. Shetye, Rohini V. Chowgule, Bombay

67. Follow - Up of 158 Children with Lung Cysts
N. Somu, A. Balachandran, D. Vijayasekaran, L. Subramaniyan, A. Chandra Bhushanam, Madras

68. Clinical profile of childhood tuberculosis and the role of B.C.G. skin test
K.V. Ramana Rao, Satyabhama Devi, T. Prakasa Rao, Burla (Orissa)

69. Value of Antibiotic Therapy in Tuberculin positive Children with Parenchymal Lung Lesions.
N. Somu, D. Vijayasekaran, T.P.Ashok, T.L. Rathnakumari Madras

70. Diaphragmatic Eventration in children-An experience
H.R. Shanbhogue, T. Pandurangan, G. Ganapathy, Madras.

71. Awareness and Attitude of parents towards wheezy children
A. Ramanath, M.B. Raghu, S.Balasubramaniam, Madras.

72. Agenesis of Lung- A case report
J.S. Swarnkar, S. Kirolikar, C.S. Ghosh, Bhilai.

12.30-1.00PM — **BRONCHIAL ASTHMA II**

CHAIRPERSONS — DR.R.C. BHASIN, DR. RAJINDER SINGH BEDI, DR. PRABHU DESAI

73. Study of Efficacy of Salmeterol, A new long Acting Beta2 Agonist in Bronchial Asthma
A.A. Mahashur, P. Sundaram, V.P. Kolhatkar, Bombay

74. Study of Inhalation Steroids in the Management of Bronchial Asthma
Sundeep S. Salvi, D.R. Joshi, Pune

75. Effect of Ipratropium bromide in bronchial asthma
Aratrika Gosh, V.S. Taskar, A.A. Mahashur, Bombay

76. Factors influencing the prevalence of Asthma in First Degree Relatives of Asthmatics
K.S. Kumari Indra, P. Ravindran, M. Joshi, P. Sundaram, Sudheendra Ghosh, Jose Raj, Trivandrum.

1.00-2.00PM — LUNCH

SESSION XI

2.00-2.30PM — **PULMONARY INFECTIONS**

CHAIRPERSONS — DR.J.SWARNKAR, DR.J.K. SAMARIA, DR.C.S. JAYACHANDRAN

77. Trend of Tuberculosis Infection among school children in south kerala
M. Joshi C.P. Ravindran, C. Sudeendra Ghosh, Trivandrum

78. Bacterial Growth patterns in intensive respiratory care unit - changing trends.
Nitin Pandurang More, Amita U. Athavale, Nirupama Singh A.C. Shan, Alka Gogate, Bombay

79. Use of Vancomycin in selective Kirechner's Liquid Medicine for culture of tubercle baulli
Sara Matheiw, Madras

80. Risk factors for severe Disease in Pulmonary Tuberculosis
J. Balachandran, M. Joshi, P. Ravindran, P. Sundaram, C.S. Ghosh, R. Jose Raj, K. Anithakumar, K.S. Kumari Indira, Trivandrum

2.30-3.30 PM	**SYMPOSIUM ON BACTERIAL INFECTIONS OF THE LUNGS**
MODERATOR	A.A. MAHASHUR
NOSOCOMIAL INFECTIONS	DR. P. RAVINDRAN
BACTERIAL INFECTIONS IN HIV DISEASE	DR. PRABHU DESAI
NEWER ANTIBIOTICS IN BACTERIAL LUNG INFECTIONS	DR. K. HARANATH, MADRAS.
3.30 - 4.15PM	VALEDICTORY FUNCTION
4.15PM	TEA

1 ASTHMA PREVALENCE IN BOMBAY CITY (PRELIMINARY FINDINGS)

Rohini V. Chowgule, V.M. Shettye, J.R. Parmer,
Bombay Hospital Institute of Medical Sciences,
Bombay.

Asthma Mortality is increasing and also the prevalence. This has been documented in many studies which has been published. The aim of this study is to estimate the prevalence of asthma, its risk factors, and variation. The study was conducted in Bombay Metropolitan city. The ward "D" was selected because it had homogenous representation of both lower and higher socio-economic group of people and also is not highly polluted. This study is divided into phase I & II. In phase I, we randomly selected 3500 people between age 20-44 yrs, from 1989 electorol roll. Door to door interview of subject was done by the trained social workers. One page questionnaire was administered. In Phase II, 153 from above population were called for full check up. This consisted of detail questionnaire, spirometry, Methacholine challenge test, & allergy testing. 3500 subjects randomly selected from "D" ward. 1821 males & 1679 females were screened for one page questionnaire. The response rate in Male was 1152 (63.2) & female was 1064 (63.3). In phase II, from 2216 responded people, 71 males and 69 females were randomly selected for test. The Baseline Spirometry in males, 59 were normal and 10 abnormal, while in females, 50 were normal and 18 abnormal. The Methacholine Challenge, fall of FEVI by 20% was considered as positive. 13 males showed positive response and 46 showed negative response. In female 3 showed positive and 47 showed negative. The allergy testing showed 10 males were positive and out of these 9 were positive for house dust mite and one for fungi. 8 females showed positive skin test – 4 positive for house dust mite, 3 for fungi, 4 for pollens. This is an initial part of the study which shows that in the first phase the prevalence of asthma is 7%. The phase II indicates that the prevalence would be 11%.

2 TRENDS IN ASTHMA MANAGEMENT

Shah Sunil V, Bombay
Darshan Clinic and Education Centre,
Bombay.

A survey was conducted amongst 500 Chest Physicians, physicians, and pediatricians. Majority (89-100%) feel asthma is increasing. 86% attribute to pollution. Diagnosis and monitoring remains mainly clinical. 16% of pediatricians, 44% of Physicians and 54% of Chest Physician use peak flow meter. 28% use spirometry. More than 50% use nebulizer, 50% initiate Therapy with β2 inhalers. 67% of Pediatricians, 46% of Physicians 36% of Chest Physicians hesitate in prescribing inhalers. Reasons discussed. Majority use preventive medication ketotifen. 57% of Chest physicians prefer steroid inhalers. Limitations discussed. 41% use spacers. 39% believe in allergy evaluation and desensitization. Majority find need for updates and (98%) lack health education material. 86% desire research in alternative therapies (Ayurved, Homeopathy) in asthma.

3 AZELASTIN TABLETS IN ATOPIC BRONCHIAL ASTHMA

K. Suguna, M. Santhankrishnan, C.N. Deivanayagam,
Government Hospital for Thoracic Medicine, Madras.

A double blind randomised parallel group study to evaluate safety and efficacy of Azelastin 4 mg tablets in comparison with Ketotifen in treatment of allergic Bronchial Asthma was undertaken.

Evaluation will focus on skin test, lung function, requirement of concomitant medication and unwanted effects.

Patients with history and skin test suggestive of atopy are included. So far 29 patients have entered the trial. 10 patients have completed the 7 weeks trial and 19 are on trial. The total number of patients for the trial is 40.

The additional drug requirement besides the trial drug, clinical status, pulmonary function parameters, side effects noted and subjective & objective assessment have all been completed on weekly basis. A complete report will be available at the time of conference.

4 COMPARISION OF EFFICACY OF TWO DOSES OF DISODIUM CROMOGLYCATE IN THE MANAGEMENT OF BRONCHIAL ASTHMA.

Dr. R. Premanand, P. Subba Rao, G. Venkatramana,
M. Gangadhara Reddy
Dept. of Chest Medicine, S.V.M.C.,
Tirupati.

Antiinflammatory therapy is the mainstay of Management of Bronchial Asthma. Of the - Antiinflammatory drugs, Steroids and Disodiumcromoglycate (DSCG) are widely used for the purpose. As it exists in present day

clinical practice DSCG is being administered at varied doses like two puffs of 5 mg each 6th hrly and 2 puffs of 1 mg each, 6th hrly. These two doses have been tested individually for their usefulness but they were not compared with each other. This study compares these two doses in the management of Bronchial Asthma.

20 patients of chronic perennial asthma were studied for the purpose using a double blind double dummy cross over technique. Symptom score, drug score and daily PEFR were monitored throughout the study. Results are analysed utilizing student paired 't' test, analysis of variance technique and critical difference. Both doses of DSCG produced significant improvement over placebo in all aspects (at 1% level) DSCG 5 mg/puff, dosage produced significant improvement over 1 mg/puff dosage in all scores (at 1% level). Tnere are no significant side effects either with 1 mg/puff or 5mg/puff of DSCG.

5 INHALATION CORTICOSTERIODS FOR BRONCHIAL HYPER-REACTIVITY IN BRONCHIAL ASTHMA

Ramesh Chander Bhasin, Rajiva Gupta,
Moulana Azad Medical College,
New Delhi.

The effect of three weeks of inhalation Corticosteriods on resting bronchial tone with special reference to their effect on diurnal variation of PEFR and protection conferred against exercise induced asthma and against controlled. Challenge with histamine inhalation have been studied in 30 adult asthmatics. The results of above were compared with clinical, physiological and laboratory parameters like absolute eosinophil count.

The observation of the study with inferences will be presented.

6 STANDARDIZATION OF METHACHOLINE CHALLENGE TEST-ITS SENSITIVITY & SPECIFICITY.

Vasant M.Shetye, Rohini V. Chowgule,
Jitendra R. Parmar,
Bombay Hospital Institute of Medical Science,
Bombay.

Bronchial Provocation test is a valuable technique which documents bronchial hypersensitivity to specific and nonspecific agents. This study was conducted to standardize Methacholine Challenge test in our laboratory. Methacholine Chloride was used in different concentrations 0.39, 1.56, 6.56, and 12.5 mg/ml. We used short or long protocol during the procedure. Methacholine solution was given through Dosimeter which regulates inhalation time, pause time and number of breaths. The number of inhalations vary per dose of Methacholine Concentration and protocol. Subjects with wheeze, feeling of tightness in chest, shortness of breath, asthma in remission followed long protocol to avoid severe bronchospasm. Those with no symptoms and no history of bronchial asthma followed short protocol. The test was terminated either consuming all doses of Methacholine or at PD30. 135 subjects were selected for the test. They were subjected to questionnaire and Baseline Spirometry. We excluded people with abnormal FEV1 (23/135), on β Blocker (5/135) pregnant (2/135) and poor cooperation (10/135) from the Methacholine Challenge test. The remaining 90 people were divided into 4 categories 1) Symptomatic (15/90), 2) H/o Asthma (7/90), 3) Family h/o asthma (14/90), 4) No symptoms and no family h/o asthma (54/90) were subjected to Methacholine Challenge test. The test was positive in category 1) 5/15 (33.3%), 2) 6/7 (87%), 3) 2/14 (14.3%), 4) 8/54 (14.8%). Our results show that 30% of atopic and 18% nontopic subjects have positive response to methacholine. The sensitivity of our test is 80% (asthma +ve 6/7) and specificity 89% (no symptoms -ve 48/54).

7 SOCIO-ECONOMIC FACTORS AFFECTING COMPLIANCE OF INHALER THERAPY IN ASTHMA

Rajinder Singh Bedi,
Patiala.

Whereas inhaler therapy has become treatment of first choice for asthma in west., In India, the position is quite different. The aim of this paper was not to assess the efficacy of inhaler therapy, but to find out various reasons for poor patient's–compliance regarding this mode of therapy of the 150 cases of nasobronchia allergy, who were prescribed antiasthma drugs in inhaler form after thorough motivation, 96 patients were available for analysis after a follow up period of three months. Of these only 38 cases (39.5%) were continuing with inhaler therapy and 60.5% had abandoned aerosolized drugs. Various socioeconomic factors due to which patients discontinued inhaler therapy were analysed and details will be presented and remedial measures discussed.

8 STUDY OF METHOTREXATE IN BRONCHIAL ASTHMA

R. Narasimhan,
Apollo Hospital,
Madras.

This study was under taken to see the role of methotrexate in the management of Chronic, Steroid dependent bronchial asthma patients for ensuring a decrease in steroid dosage. Methotrexate in low doses is an anti-inflammatory agent. It is a very well known fact that inflammation plays a major role in the Pathogenesis of asthma and anti-inflammatory drugs have a major role to play. Many of anti-inflammatory agents like Colchicine, Azathioprine, Mercaptopurine and Prostaglandin inhibitors were tried and they all failed. There are few studies with MTX in children showing variable success.

I tried MTX in weekly pulses in about 10 steroid dependent cases for about 6 months and found that steroid dosage came down, need for Bronchodilators came down and other positive factors occurred. Two patients could not tolerate. So it was concluded that this is can be used carefully in patients. Since MTX was in low dosage no elaborate monitoring was necessary.

9 IMPORTANCE OF PREVENTIVE MEASURES IN EXTRINSIC BRONCHIAL ASTHMA

H.G. Varudkar, C.G.Shetty, S.V. Nagarkar,
Pune.

We had organised a campaign called "Conquer Asthma" in Pune district consisting of Allergic Asthma Diagnostic Camps in selected centres. In each group a preplanned questionnaire, clinical Examination allergy testing with selected allergens were done and the patients were given health education by a handbill, Video film in Marathi, Personal counselling and at last a general question and answer session. Each patient was given three post cards, each to be posted every month to report about the precautions and relief.

Out of total 698 patients only 78 could be followed up and 92% patients showed sensitivity to either D.pterionossis or D.ferinae or both. Majority of the patients following instructions had marked to moderate relief of symptoms and required no medicines or minimum medicines.

This study will reveal the importance of preventive measures in extrinsic Bronchial Asthma.

10 FIBERSCOPY SANS TRANSNASAL ANAESTHETICS AND PREMEDICATION

P.V.P. Rao, M.V.V.S. Murthy,
Kasturba Medical College, Manipal.

It is known that Fiberoptic Bronchoscopy (FOB) can be done without premedication.

All of us are aware that nasogastric tube can be passed through the nose without local anaesthesia and hence there is no reason that fiberscopy needs local anaesthesis for passing through the nose. With this assumption we decided to assess the role of local anaesthesia, Lidocaine in the nose while passing FOB up to vocal cards.

Fifty subjects with indications for FOB were taken for the part I of the study. 2% Lidocaine (1 ml) was instilled through the nose. They were encouraged to cough, so that it would clear off the nasal passage soon. Then we applied lidocaine or K.Y. Jelly (L & K) as the tip of the fiberscope for alternate subjects and it was passed transnasally.

In the part II of the study, the assistant was given two tubes containing L and K Jelly fully covered and coded. She was directed to apply L or K Jelly in alternate subjects in the selected side of the nose. Then the endoscopist was invited to do FOB. Thus another 50 subjects had the procedure.

In both the instances the scope was passed comfortably up to vocal cards. From there Lidocaine was instilled SOS, not exceeding the dosages. The cooperation was assessed using cooperation index, derived by the first author.

The two part experiment showed that a lubricant only is required to pass the fiberscope upto the vocal cords.

11 ADENOSINE DEAMINASE ACTIVITY IN BALF AND SERA IN PATIENTS WITH ROENTGENOGRAPHIC LUNG OPACITIES

U.S. Mathur, Navin David Sen, Virendra Singh,
P.Dhaka, Ashok Gupta
S.M. Hospital – Jaipur.

The diagnostic significance of adenosine deaminase was correlated in patients of tuberculosis and malignancy of the lungs. ADA levels were estimated in sera and bronchoalveolar lavage fluids in 51 cases. Mean sera ADA levels in tuberculosis and bronchogenic carcinoma were 59.24 U/L and 26.31 U/L respectively. Similarly

in BALF mean ADA levels in tuberculosis and bronchogenic carcinoma were 6.41 U/L and 4.07 U/L respectively. The correlation coefficient between BALF and sera ADA levels for malignancy group was +0.90 ($P < 0.001$) and for malignancy group was 0.88 ($P < 0.001$) making both values highly significant. In case of tuberculosis the ratio of BALF/sera ADA was 1:9.2 while ratio in case of bronchogenic carcinoma was 1 : 6.

It can be concluded that in patients with lung opacities of unknown etiology estimation of serum and BALF ADA may be useful diagnostic test.

12 STUDY OF DIFFERENTIAL LEUCOCYTE COUNT OF BRONCHOALVEOLAR LAVAGE FLUID IN IDIOPATHIC PULMONARY FIBROSIS AND ITS RELATIONSHIP WITH PREDNISOLONE TREATMENT

S.C. Matah, J.K. Samaria, Sudhirkumar, T.K. Lahiri, N.C. Arya, N.B. Singh
Institute of Medical Sciences, BHU, Varanasi.

This study includes 18 patients attending chest OPD in Institute of Medical Sciences Hospital, Banaras Hindu University, Varanasi, who had clinical & radiological features suggestive of Idiopathic Pulmonary Fibrosis. 12 were males & 6 were females 50% were in 5th decade. Mean age 53.34 years of the study group. In all of them Bronchoalveolar Lavage was performed. Six Normal healthy volunteers also underwent Bronchoalveolar Lavage which acted as control group. Differential Leucocyte Count was done of Bronchoalveolar Lavage fluid. Later all the patients were put on predinosolone therapy at 0.6 mg/kg Body weight daily. Mean Neutrophil count in Interstitial Pulmonary Fibrosis patients was significantly increased as compared to control value ($16.50 \pm 1.43\%$ Vs 2.2 ± 0.33, $P < 0.001$). In 6 patients who had responded clinically to oral prednisolone therapy had insignificant fall in neutrophil group as compared that of predisolone non-responders (14.0 ± 2.0 Vs $17.75 \pm 1.70\%$). Mean Lymphocyte count in Interstitial Pulmonary Fibrosis group was insignificantly decreased as compared to the control group (9.67 ± 1.45 Vs 11.2 ± 0.25), but prednisonlone responder group has significant higher counts than the control group (14.0 ± 1.0 Vs 11.2 ± 0.25, $P < 0.25$). Mean Eosinophil count in Interstitial Pulmonary Fibrosis was significantly raised as compared to the control group. (5.33 ± 1.05 Vs 0.6 ± 0.16, $P < 0.001$). Prednisolone non-Responders had significantly higher Eosinophil count as compared to prednisolone responders (6.75 ± 1.46 Vs 2.5 ± 0.50, $P < 0.25$). Thus patients with increased lymophocyte count are likely to respond to treatment and to maintain good progress. Patients with increase in Eosinophils and or neutrophils without increase in lymphocytes usually failed to respond to prednisolone therapy & those with raised Eosinophils are more likely to undergo deterioration.

13 PAEDIATRIC BRONCHOSCOPY

K. Lakshmanan, SRMC & RI,
Madras.

Foreign bodies in the respiratory tracts of children are more common than in adults; more so in the bronchus than in the larynx and trachea and are often not recognized. Negative history of aspiration leads to an erroneous diagnosis of asthmatic bronchitis, primary complex, bronchietasis, bronchopneumona, etc., Prolonged medication and physiotherapy are to no avail. This stalemate is solved dramatically by bronchoscopy. Therefore, early diagnosis and removal is essential to save the life of a child to prevent serious complication. Hence awareness of foreign bodies is most important for medical practitioners. Diagnosis of unusual, dangerous foreign bodies, types of foreign bodies, common sites, new techniques of removal, are discussed.

In acute and chronic respiratory problem foreign body aspiration is a must in differential diagnosis; if diagnosed early removal by using bronchoscope is absolutely necessary in a child.

14 ANALYSIS OF BRONCHIAL MALIGNANCY IN FIBRE OPTIC ENDOSCOPY IN 1993

T.G. Manickam,
Institute of Oto Rhino Laryngology – GGH,
Madras.

Analysis of 332 cases by Fibre-Optic Bronchoscopy to detect Bronchial Malignancy at ENT Endoscopy Clinic, Govt. General Hospital, Madras for the year 1993.

Our study showed 92 cases of Bronchial Malignancy Male and Female Ratio 3.5 : 1

Age incidence in Male 30-60 yrs (25%) and in Female 30-40 (40%) Cytologically Squamous Cell Carcinoma is seen in 80% of cases.

Tracheo-Bronchial Luminal lesions were seen

in 47 cases of which 25 cases occurred on right side (43%); 15 cases on the left side (32%) and 7 cases central lesions (14.8%)

Radiologically Bilateral Hilar shadows were seen in Males, of which 62% on the right side and 55% on the left side whereas in Females only right side Hilar shadow was seen in 40%. Tracheal growth was seen in 5 cases (5%), P.T with malignancy were seen in 15 cases (15%).

To conclude Squamous Cell Carcinoma occurred more in females between 30-40 yrs. with luminal lesions seen in 50% of cases with predilection to the right side as evidence by the x-ray Hilar shadow and endoscopy findings. Rare cases of secondaries in the lung with primary in the colon, Oesophagus, Prostate, Bone, Foot and Scalp deposits were seen.

15 ROLE OF TRANSBRONCHIAL NEEDLE ASPIRATION IN ROUTINE FIBROPTIC BRONCHOSCOPY

Rakesh Bhargava, M.U. Rabbani, SK. Md. Yakub, Ansar A Khan
J.M. Medical College, AMU – ALIGARH.

The study was conducted in 44 patients with chest Roentgenogram suggestive of malignant lesions or patients who were undergoing detailed clinical and laboratory investigations and subjected to fiberoptic bronchoscopy with transbronchial needle aspiration, bronchial aspirate, standard forceps biopsy and brush biopsy were applied whenever feasible. The specimens for cytology and histopathology were studied by MGG Papanicola and haematoxylin – eosin stain.

Results of TBNA were compared with other procedures.

We conclude that TBNA is a simple, Safe technique and consumes, less additional time of the bronchoscopist. Selective use in certain subsets of patients can increase the diagnostic yields of Fiberoptic Bronchoscopy.

16 TRANSBRONCHIAL LUNG BIOPSIES – AN ANALYSIS

Raj B. Singh,
Dept. of Respiratory Medicine,
Apollo Hospitals, Madras.

All transbronchial lung biopsies done in Apollo Hospital from April 1989 to September 1993 were analysed. The clinical diagnosis, pathological diagnosis, treatment, outcome and complications studied will be presented.

17 COMPARISON OF BRONCHO-ALVEOLAR, LAVAGE FLUID MALIGNANT CYTOLOGY WITH PRECUTANEOUS LUNG BIOPSY IN PERIPHERAL LUNG CANCER PATIENTS

S.C. Matah, J.K.Samaria, Sudhir Kumar, T.K. Lahiri, N.C. Arya,
Mukesh Singh
Institute of Medical Sciences, B.H.U., Varanasi.

This study includes 10 patients attending Chest OPD in Institute of Medical Sciences Hospital, Banaras Hindu University, Varanasi having clinical & radiological features suggestive of peripherally situated lung carcinoma. 6 were males & 4 females. Age ranged from 41 years to 72 years. Mean age for male was 62 yrs. & that of female was 58 yrs. All of the them were subjected to Bronchoscopy for Bronchoalveolar Lavage & random Bronchial Biopsy. Percutaneous Lung Biopsy was attempted in all by Monoject Gun Biopsy needle but out of 10 patients, 8 showed malignant cells on histopathology giving 80% result. Bronchoalveolar Lavage cytology was positive for malignant cells in 6 patients giving overall 60% results. 2 patients who had not shown malignant cells in Percutaneous Lung Biopsy had malignant cells shown in Bronchoalveolar Lavage fluid. Out of 8 Percutaneous Lung Biopsy proved cases Bronchoalveolar Lavage was positive in 4. Random bronchial biopsy was positive in only 2 patients giving only 20% results. Thus Bronchoalveolar Lavage can be helpful in identifying those patients of peripheral bronchogenic carcinoma whose Percutaneous Lung Biopsy attempt is negative for malignant cells.

18 PATTERN OF LUNG CANCER IN NORTHERN KERALA - A RETROSPECTIVE STUDY

C.Ravindran, T.P. Rajagopal, S.Venkata Subramaniam, N.V.U.Warrier
Institute of Chest Diseases C.M.C., Calicut.

Lung cancer is believed to be the commonest fatal malignancy in the world today. In USA among 157000 cancer deaths in 1991, 120000 were due to lung cancer. Increasing trend in the diagnosis of lung cancer in India has been noted.

In spite of health education and campaigns for smoking cessation, the incidence of lung cancer continues to increase. This study is a retrospective analysis of cases of lung cancer

admitted in a major referral hospital of Kerala during the year 1992.

119 cases of lung cancer were detected during the year, 108 of them were males (90.8%) and 11 were females (9.2%). Most cases occurred in the 50-60 years age group ($n = 51$) (42.9%). There were 6 patients (5.0%) who were less than 40 years of age.

The Histo Cytopathological pattern was

Squamous cell carcinoma	= 48.7% ($n = 58$)
Adeno carcinoma	= 24.4% ($n = 29$)
Small cell carcinoma	= 8.4% ($n = 10$)
Secondaries	= 8.4% ($n = 10$)
Carcinoid	= 0.8% ($n = 01$)
Combined	= 0.8% ($n = 01$)

There were 10 cases of Pancost tumor where a tissue diagnosis could not be made.

19 FIBREOPTIC BRONCHOSCOPY IN 100 CASES OF HAEMOPTYSIS - AN ANALYSIS

N.Sankaran, Tirunelveli Medical College, Tirunelveli.

100 cases of haemoptysis subjected to Bronchoscopy have been analysed and observations enumerated. Cases selected were those where routine investigations could not give a clue to the exact diagnosis.

Majority of patients were in the age group 20-60 years and males predominated. 91 patients had abnormal x-ray. Opacities formed the major group followed by necrotising lesions, cystic changes and atelectasis.

Common x-ray picture of Bronchiectasis were streaky shadows. In peripheral opacities Bronchogenic Carcinoma and SLD were almost equal in distribution. Necrotising lesions showed mainly Lung abscess; cystic changes showed mainly Bronchiectasis, atelectasis showed both malignant and infective lesions; SPN showed benign and malignant lesions.

In patients with normal x-ray no tumour could be detected on scopy. Endobronchial tuberculosis and non tuberculous infection were seen, proving that x-ray normality need not make us assume that haemoptysis is cryptogenic.

Other rare and interesting cases in the study are:-

A female patient with peripheral SPN in the x-ray had central lesion on scopy. One youngster presented with haemoptysis, and left hilar shadow due to aortic aneurysm. In two young patients Bronchogenic Carcinoma were detected.

20 PEFLOXACIN IN THE TREATMENT OF NOSOCOMIAL RESPIRATORY TRACT INFECTIONS

S.K.Rajan, A.A.Mahasur, S.K.Bowalekar
Department of Chest Medicine & CVTC, KEM Hospital, Bombay

The efficacy and safety of the fluoroquinolone pefloxacin was evaluated in 55 patients with nosocomial respiratory tract infections. Eighteen patients had bronchiectasis, 14 had chronic obstructive pulmonary disease, 9 had lung abscess, 6 had pneumonia, 3 had bronchial asthma with infection, 2 had interstitial lung disease with infection, and 1 patient each had emphysema, infected lung cyst, and hydropneumothorax. All patients suffered from cough. Forty-two (76%) of the 55 patients had dyspnea, 33(60%) had rhonchi, and 22 (40%) had fever. Klebsiella and Pseudomonas species were isolated from the sputum of 18 and 17 patients, respectively. Two patients were infected with Acinetobacter, 3 with staphylococci, 2 with streptococci, and 2 were infected with streptococcus pneumoniae, and 1 each with Haemophilus influenzae, and Escherichia coli. 12 patients were treated with pefloxacin 400 mg twice daily for 10 to 14 days. In 36 (84%) of the 43 patients with positive cultures, pefloxacin therapy eradicated the organisms. The organisms persisted in seven (16%) patients, improvement was seen in 39(71%) patients, and failure occurred in 6 (11%) patients. Pefloxacin therapy did not affect biochemical values. One patient complained of mild headache, but this side effect was not directly attributable to Pefloxacin treatment. Pefloxacin should be considered as an alternative to multi-drug therapy for treatment of nosocomial respiratory tract infections.

21 USE OF HIGH RESOLUTION COMPUTED TOMOGRAPHY (HRCT) IN LUNG PARENCHYMAL DISEASE

Meher C.Dadachanji and Rohini V.Chowgule
Bombay Hospital Institute of Medical Sciences, Bombay.

Since the advent of CT Scan its usefulness in the diagnosis of lung disease has been restricted to the detection of lung nodules, occult pulmonary processes and differentiating lung disease from pleural disease. HRCT techniques

are useful for examining lung parenchyma in greater detail. The aim of the study was to identify and classify various lung diseases according to their characteristic patterns of involvement and their distribution. 50 patients with a diagnosis of interstitial Pulmonary Fibrosis (IPF), Sarcoidosis, Lung Carcinoma and Bronchiectasis, were studied. HRCT was performed on a Siemens High Q Scanner. The technique utilized 1 to 2 mm thick collimation scans and a high spatial frequency algorithm. Retro targeted reconstructions of each lung were obtained. The studies were performed in the prone position when indicated. The 20 cases of chronic IPF disease showed interlobular septal thickening which was peripheral in distribution, honeycombing and traction bronchiectasis. The 10 cases of acute IPF disease showed areas of ground glass alternation which suggested active alveolitis. The 10 cases of Sarcoidosis demonstrated nodules which were usually seen around the bronchovascular bundles and in the subpleural portions of the lung. Thickened interlobular septa, subpleural honeycombing and mediastinal and hilar lymphadenopathy, were other findings. The 3 cases of lymphangitis carcinomatosis showed thickening along the broncho-vascular bundles, interlobular septa and subpleral portions of the lung with either diffuse or focal involvement. There was no evidence of lung distortion, cysts or bronchiectasis, which was seen in sarcoiodosis. 7 cases of Bronchiectasis who had normal chest x-ray showed definite evidence of bronchiectasis on the HRCT Scans. HRCT also helped to map the extent of the disease. HRCT is highly sensitive in the detection, localization and characterization of lung parenchymal disease. It is also useful for the follow-up of lung diseases.

22 ROLE OF COMPUTERISED TOMOGRAPHY IN DIAGNOSIS OF MEDIASTINAL LESIONS

Ajit Bhaskar, K.M. Remeshchandra Babu, V. Achuthan, K.P.Govindan, N.V.U. Warrier
Institute of Chest Diseases, Medical College, Calicut,

Lesions of the mediastinum are diverse both clinically and anatomically and vary in their clinical manifestation from asymptomatic to urgent. With the advent of computerised tomography and nuclear magnetic resonance imaging, mediastinal lesions are being detected with increasing frequency. Hence a selective study was carried out to ascertain the role of CT in the diagnosis and aetiological evaluation of X-ray detected mediastinal lesions. 20 patients with chest X-ray (PA view) evidence of a mediastinal widening or hilar lesions are included in the study. All of them were subjected to contrast enhanced computerised tomography of the thorax (3rd generation wholebody CT scanner) using 10 mm scan thickness or 5mm in areas of special interest. CT diagnosis was agreed to be correct if it tallied with TINA (CT guided) results or thoracotomy and biopsy results. Each CT report given was after full assessment of clinical features, chest X-ray and other investigations. Of the 20 cases, 18 had some definite pathology. CT can delineate the true causes of the mediastinal lesions with 100% sensitivity and a specificity of 66.71%. By CT the benign nature of the lesions could be produced with 100% senstivity and the malignant nature with 80% sensitivity. Aetiological correlation and diagnosis by CT was possible in 72.2%. CT has a better negative predictive value than positive and hence should be the first line of investigation in any case of X-ray detected mediastinal lesions.

23 CONSERVATIVE MANAGEMENT OF PULMONARY ARTERIOVENOUS FISTULA

Vijaya M Nayak, Solomon Victor
The Heart Institute, Madras.

One patient with discrete subpleural pulmonary anteriovenous malformation in the anterior and apical segments of the left lower lobe underwent excision of the malformation without sacrificing pulmonary parenchyma.

In another male aged 30 years, with pulmonary AV fistula in the right upper lobe, underwent ligation of the truncus arteriosus and posterior ascending branch which resulted in correction of hypoxemia and symptomatic improvement. This procedure akin to non-invasive embolisation of the feeding artery was resorted to, because there was no fissure between the upper and middle lobe and there was a risk of need to remove the middle lobe unnecessarily.

24 GUILLAIN BARRE SYNDROME AND MECHANICAL VENTILATION

Dr. Debidas Ray, Dr. Chandaran Gnanamuthu, Vellore.

The course of events in 19 patients with Guillain-Barre syndrome (GBS) who went into respiratory failure due to muscle weakness

requiring ventilatory assistance was analysed. 15 patients (79%) had autonomic dysfunction, and 8 patients (42%) had fulminant respiratory infection. Autonomic dysfunction and respiratory infection were the major causes of mortality. Thus of nine patients (47%) who died in hospital, 5 had combined autonomic dysfunction and severe respiratory infection, 3 patients had autonomic failure alone and 1 patient had fulminant respiratory infection. The management of acutely ill patients with GBS requiring mechanical ventilatory support when fraught with such complications, especially in the tropical environment, may result in high morbidity and mortality.

25 SEASONAL VARIATION IN RESPIRATORY DISEASES

K.C. MOHANTY,
J.J.Group of Hospitals, Bombay

A study was conducted to find out seasonal variation in various respiratory diseases from June 1990 to May 1991.

It was seen that respiratory tract diseases showed peak in winter months with small peak in summer and spring.

It was seen that climatic changes such as temperature, humidity and ambient air current can affect airborne infections.

Asthma exacerbations were during winter with mean temperature range of 17.8c-27c & humidity range of 30-47%.

The details will be presented at the conference.

26 PULMONARY DIFFUSING CAPACITY IN LEFT VENTRICULAR DYSFUNCTION

U.S.Mathur, S. Mittal, V. Singh, U.K. Gupta,
S.M.I. Medical College, Jaipur.

Twentyfive patients of left ventricular dysfunction having left ventricular ejection fraction (LVEF) less than 40% were studied, as regards spirometric indices & pulmonary diffusing capacity for carbonmonoxide (DLCOSB). Out of 25 patients, 8 had audible crepitation and 17 did not have any crepitation on clinical examination

DLCOSB (% of predicted) was significantly lower (54.025%) in patient with crepitation (Group I) as compared to patients without crepitation (Group II) (79.058%). The Mean DLCO/Va (% Pred) was also significantly lower in groups with crepitations (59.125%) while it was nearly normal in patients having no crepitation (91.94%). The difference between spirometric indices was not statistically significant in the two groups.

The decrease in DLCOSB in 1st group could be due to interstitial edema and Intra alveolar Fluid and may be a good predictor of clinically evident heart failure.

27 ESTIMATION OF TOTAL LUNG CAPACITY COMPARISON OF RADIOLOGIC AND BODY PLETHYSMOGRAPHIC METHODS

P.M.Venkata Sai, S. Arunkumar, V. Sivasubramaniyan,
J.D. Roy Santhosam, B. Sridhar, R. Natarajan, U. Krishna Rao,
SRMC & RI, Madras.

The estimation of total lung capacity (TLC) plays a vital role in the evaluation of obstructive and restrictive airway diseases. TLC can be estimated by Helium Dilution method. Nitrogen washout method. Body Plethysmography and by chest skiagrams.

A study was conducted in the Department of Radiology and Pulmonology of Sri Ramachandra Medical College and Research Institute, to estimate the total lung capacity comparing chest skiagrams and body plethysmography.

Twenty four normal adult healthy subjects and thirty patients with obstructive and restrictive lung diseases like Asthma, Bronchitis, Emphysema, ILD, Pleural Effusion etc., were selected for the study.

Correlation between Chest Skiagram and Body Plethysmography will be discussed.

28 EFFECTS OF LUNG FUNCTION IN SPINAL DEFORMITIES

Palanimuthu, Thiagarajan, N. Muthukumaraswamy, Murugesan,
Thanjavur Medical College, Thanjavur.

Severe scoliosis and kyphoscoliosis is a well recognized cause of respiratory disability and when severe, results in respiratory failure and cor-pulmonale.

We have studied 25 cases of kyphoscoliosis of different age groups and different types.

The results will be discussed.

29 CORRELATION OF ECG 2D ECHO AND ABG ANALYSIS IN 50 CASES OF COR PULMONALE

Rajesh Natvarlal Solanki, D.R.Patel, S.B.Tripathi,
B.J. Medical College & Civil Hospital,
Ahmedabad.

In a study of 50 cases of Cor-Pulmonale clinical evaluation, ECG, 2D - Echo and ABG analysis were done and attempt has been made to correlate ECG, 2D - Echo and ABG analysis.

RV abnormality with severe pulmonary hypertension may show PaO_2<60mm Hg and $PaCO_2$>35mm Hg and SAO_2<80%. pH does not show any significance. HCO_3 was above 28meq/l in majority of cases.

Ventricular extrasystole and right bundle branch block were present in 20% of cases having PaO_2 < 60mm Hg: $PaCO_2$>35mm Hg;pH<7.36 and SaO_2<80%.

30 LUNG FUNCTION CHANGES IN MITRAL STENOSIS

V. Thiagarajan, N. Muthukumaraswamy,
Thanjavur Medical college,
Thanjavur.

Heart disease may affect the function of the lungs both directly, (for e.g. by reducing their distensibility) and indirectly by a poor cardiac output leading to anaerobic metabolism and increased ventilatory requirements.

The results of this interaction in 50 cases of Mitral Stenosis studied, will be presented.

31 SPIROMETRIC STUDIES IN TROPICAL PULMONARY EOSINOPHILIA BEFORE AND AFTER TREATMENT WITH DIETHYL CARBAMAZINE

K.K. Praveen, B.H. Krishna Murthy Rao,
Kasturba Medical College,
Mangalore.

72 patients with tropical pulmonary Eosinophilia were studied. Spirometric studies were done before and after a course of Diethyl Carbamazine for two weeks.

Absolute Eosinophil count had no relation with severity of symptoms. Mean FVC and FEVI Values were reduced in Tropial Eosinophilia. Obstructive, Restrictive and mixed types of spirometric defects observed. Diethyl carbamazine therapy resulted in significant improvement in spirometric values.

Response to Therapy was more in recent illness.

32 REVERSIBILITY OF SMALL AIR WAY OBSTRUCTION IN ASTHMA AND COPD

B.Jayakrishnan, Ranjana K. Jayapal,
P.S.G. Institute of Medical Sciences & Research,
Coimbatore.

Small airway obstruction is well documented in COPD but the enthusiasm in its detection has waned. We studied the abnormality in FEF 25-75% in 100 consecutive patients who underwent computerized spirometry (Flexiflo, P K Morgan, England).

43 patients had Asthma, 31 had COPD, 17 had other diseases and 7 were normal people. 27 asthmatics had an abnormal FEF 25-75% (62.7%) of which 20 had abnormal FEV1 (46.5%) and 7 patients had an isolated reduction in FEF 25-75% alone (16.3%). In COPD 67.7% had abnormality in FEF 25-75% with 22% isolated abnormality and 45% had reduction in both values.

Interestingly only 48.8% of asthmatics showed reversibility of FEV1 whereas in 54.8% of COPD patients it was reversible 67% of patients with asthma and 54.8% with COPD had FEF 25-75% reversibility. All asthmatics were tested when they were relatively asymptomatic.

Small airway obstruction is present even in asymptomatic period in asthmatics. Reversibility of small airway function was more predominant than that of FEV1 though not statistically significant and the reverse was true for COPD patients. Hence we conclude that reversibility of FEF 25-75% should also be considered in assessing the reversibility of airway obstruction in asthma and this will serve as a better indicator of differentiation between Asthma and COPD.

33 PEAK EXPIRATORY FLOW RATE IN LOW SOCIOECONOMIC SCHOOL CHILDREN - A PILOT STUDY

Sai Praveen, Sai Prashanth, Haranath K.,
Madras Medical College,
Madras.

Peak expiratory flow rate (PEFR) is a useful simple pulmonary function test widely used as a diagnostic and prognostic criteria in subjects with airflow limitation. Appreciable diurnal variation in PEFR is seen in subjects with asthma.

A health camp was organized to screen school

children of two schools mostly orphans or belonging to low socio economic group. Apart from routine screening for general medical problems PEFR was measured in all the children using Wright's mini peakflow meter.

Three consecutive readings were taken from every student after a good practical demonstration. There were 210 children comprising of 119 females and 91 males. The age group varied from 7 to 16 years. 19 students were excluded from the study since they could not cooperate inspite of repeated demonstrations. In the study group there were 21 children below ten years and six above fourteen years. The rest 164 belonged to the age group 10 to 13 years. An attempt was made to correlate any significant association between the blood groups and PEFR. There was no statistically significant correlation. 68 had B+, 31 had A+, 12 belonged to AB+ and the rest had O+. The results of the preliminary history and clinical findings are given in Table.

The peak flow readings varied from 150 litres/min to 350 litres/min. The average PEFR in the age group below ten in males was 225 litres and in females in the same age group was 209.23 litres. ($P < 0.05$)

Detailed results will be presented.

34 EFFECT OF OBESITY ON LUNG FUNCTION

V. Thiagarajan, N. Muthukumaraswamy, Palanimuthu, Murugesan, Thanjavur Medical College, Thanjavur.

25 cases of simple obesity were studied over a period of one year. Lung function at Basal State (static) and post exercise state will be presented.

35 BRONCHOALVEOLAR LAVAGE STUDIES IN PATIENTS WITH SMEAR NEGATIVE PULMONARY TUBERCULOSIS

Vijayan, V.K.,
Tuberculosis Research Centre, Madras.

Bronchoalveolar lavage studies were carried out in sputum smear negative pulmonary tuberculosis patients to characterize the inflammatory and immune effector cells in the lower respiratory tract. 27 sputum smear negative but x-ray positive pulmonary tuberculosis patients and 17 non-smoking normal subjects were studied. The lavage were done from two sites, first from radiologically normal lobe (RNL) and then from radiologically abnormal lobe (RAL). Five 20ml aliquot of normal saline solution at room temperature were instilled into each lobe and recovered immediately. The fluids from each lobe were analyzed separately for total and differential cells. The diagnosis of active pulmonary tuberculosis was confirmed by isolation of M. tuberculosis in culture from sputum and/or lavage specimens,. Results between groups (Mean +SEM) are compared using two tailed students' t test and Mann-Whitery u test. Based on BAL results, two groups were identified. Patients with lymphocytes more than 22% and macrophage less than 75% were classified as lymphocytes predominant (n=13). The other group (lymphocytes less than 22% and macrophage more than 75%) was classified as macrophage predominant (n=14). In the macrophage predominant group, total inflammatory cells were significantly higher in both RAL ($32.6 \pm 3.3 \times 10^6$/dl Vs $16.1 \pm 1.6 \times 10^6$/dl, $P<0.001$) and RNL ($25.9 \pm 3.8 \times 10^6$/dl Vs $16.1 \pm 1.6 \times 10^6$/dl, $P<0.05$) compared to normals. similarly, absolute alveolar macrophages were also significantly higher in RAL ($29.5 \pm 3.3 \times 10^6$/dl Vs $13.4 \pm 1.4 \times 10^6$/dl, $P<0.001$) and RNL ($23.8 \pm 3.8 \times 10^6$/dl Vs $13.4 \pm 1.4 \times 10^6$/dl $P < 0.01$) compared to normals. Other types of cells were normal in both RAL and RNL on comparison with normals. In the Lymphocyte predominant groups, total inflammatory cells ($33.6 \pm 7.0 \times 10^6$/dl Vs $16.1 \pm 1.6 \times 10^6$/dl, $P<0.01$), lymphocytes ($15.1 \pm 4.7 \times 10^6$/dl Vs $2.5 \pm 0.4 \times 10^6$/dl, $P<0.01$), neutrophils ($0.8 \pm 0.3 \times 10^6$/dl Vs $0.1 \pm 0.03 \times 10^6$/dl, $P<0.05$) and eosinophils ($0.7 \pm 0.2 \times 10^6$/dl Vs $0.1 \pm 0.03 \times 10^6$/dl, $P<0.01$) were significantly higher in RAL compared to normal subjects. Total lymphocytes ($15.1 \pm 4.7 \times 10^6$/dl Vs $4.8 \pm 1.5 \times 10^6$/dl $P < 0.05$ and eosinophils ($0.7 \pm 0.2 \times 10^6$/dl) Vs $0.3 \pm 0.1 \times 10^6$/dl $P < 0.05$) were also significantly higher at RAL on comparison with RNL. All types of cells were similar in RNL and normal subjects in lymphocyte predominant group. Two distinct cell profiles, one with an increase in alveolar macrophage at radiologically abnormal and normal lobes and the other with an increase in lymphocytes and granulocyte at radiologically abnormal lobe alone are observed in sputum smear negative pulmonary tuberculosis.

36 TUBERCULOSIS: BRONCHOSCOPY AND CHEST X RAY CORRELATION

Sandhya Najundiah
Bangalore.

This study evaluates the endobronchial findings in tuberculosis, and attempts to correlate the chest x ray and endobronchial picture.

50 consecutive patients whose clinical picture was highly suggestive of tuberculosis, underwent bronchoscopy. Bronchial washing, biopsies and lavage were done. No prior history of ATT, and no associated disease were reported.

Cough present in 100%, hemoptysis 54%, fever 80%, weight loss 60%, were symptoms seen. Normal physical examination in 8%, localized wheeze in 14% and signs of pneumonitis in 70% were the physical findings. Chest x ray: Infiltrates in 58%, Mottling in 6%, atelectasis in 14%, 10% cavities, collapse lung 4%, clear chest x ray in 8%, Hilar lymphadenopathy in 14%.

Bronchoscopically the lesion were classified into four categories. Exudative (Mucosa showing edema and redness), erosive (Mucosa has erosions and swelling) Cicatricial (Hypertrophic mucosa with luminal distortion and sometimes pseudomembrane), Bronchoglandular (extrinsic lymph node compression and hypertrophic mucosa). The right upper lobe 28%, right lower lobe 16%, left upper lobe 24% were the areas of involvement. 40% were sputum smear AFB +, washings were smear + in 52%.

Correlation revealed: patients with clear chest X ray and mottled pictures and 22/29 infiltrates had exudative, 3/5 cavities had erosive findings. Circatrical picture seen in all who presented with collapse lung, 4/7 with atelectasis and bronchoglandular seen in 3/7 atelectasis and 2/5 of the cavitary presentations.

Correlation of chest X ray and bronchoscopic findings is possible and details of this study will be presented.

37 MANAGEMENT OF PULMONARY TUBERCULOSIS PATIENTS WHO FAILED ON SHORT COURSE CHEMOTHERAPY WITH BACILLI RESISTANT TO STREPTOMYCIN, ISONIAZID AND/OR RIFAMPICIN

Paulin Joseph, R. Balambal, N. Raghuraman,
C.N. Paramasivan, R. Prabhakar,
Tuberculosis Research Centre, Madras.

Patients with drug resistant pulmonary tuberculosis, who failed on various short course chemotherapy regimens were retreated with an appropriate regimen depending on the last regimens available drug sensitivity test results. The chemotherapeutic regimens are as follows. Patients with bacilli resistant to isoniazid alone or isoniazid and streptomycin:

Such patients are treated with either 6SEmb RZ_2/6Emb RZ_2 or 6KEmb RZ_2/6/Emb RZ_2 depending on whether organisms are resistant to isoniazid alone or to isoniazid and streptomycin. streptomycin 0.75g or Kanamycin 1.0 g (if the bacilli are resistant to streptomycin), plus ethambutol 1200 mg plus rifampicin 450 mg plus pyrazinamide 2g, twice a week for the first 6 months followed by Ethambatol plus Rifampicin plus Pyrazinamide in the same dosage twice a week for next six months (total 12 months). 78 patients have been treated with this regimen..

Patients with bacilli resistant to isoniazid and rifampicin or isoniazid, rifampicin and streptomycin:

Such patients are admitted to 3S3EmbEthZ7/9EmbEthZ7 or 3K3EthZ7/9EmbEthZ7 and prescribe streptomycin 0.75g thrice a week or, if the bacilli are resistant to streptomycin, Kanamycin 1.0 g thrice a week, plus daily ethambutol 600mg plus ethionamide 500mg plus pyrazinamide 1.5g for the first 3 months, followed by daily ethambutol plus ethionamide plus pyrazinamide in the same-2-dosage for the next 9 months (total 12 months). 47 patients have been treated with the regimens. The response of the patients will be presented.

38 EARLY RECOGNITION - OF - BRONCHOGENIC - CARCINOMA - COMPLICATING PULMONARY TUBERCULOSIS IN OLD AGE GROUP

Ascharajlal Anand, Shri K.J. Mehta,
T.B. Hospital, Amargadh,
Gujarat.

Fifty cases of bronchogenic carcinoma, co-existing with pulmonary tuberculosis are presented with an analysis of diagnostic features encountered. The age ranged from 44 to 76 years with average age being 49 years. Tuberculosis is now becoming a problem of old age groups as well, therefore early recognition is of importance. Our experience shows that chest pain in the absence of pleurisy, profuse recurrent hemoptysis the appearance of a typical shadow in a serial chest film, progression of x ray changes while sputum (positive) for AFB becomes negative unilateral prominence of lung hilum, thick walled

cavity with ragged lining, diaphragmatic paralysis, retraction of ribs, will arouse the alert physician to the possibility of bronchogenic carcinoma, complicating pulmonary tuberculosis. Our experience suggests, that in a heavy smoking tuberculosis male patient above the age of 50 years, whenever clinical or radiological signs, atypical for pulmonary tuberculosis are present, bronchoscopy and cytological studies of sputum are indicated to rule out malignancy.

39 CHANGING TREND OF HIV INFECTION IN TUBERCULOSIS AND PULMONARY DISEASES PATIENTS SINCE 1988 AT BOMBAY

K.C.Mohanty,
Sir. J.J. group of Hospital,
Bombay.

The surveillance of HIV infection in all hospitalized patients of Tuberculosis and Pulmonary disease is being carried out since 1988 till today at TB and Respiratory diseases department of Grant Medical college and J.J.Group Hospital, Bombay.

The total number of patients screened were 4054 (205 HIV +ve) including 3043 Males (135 HIV +ve) and 1011 Females (70 HIV +ve).

The incidence of HIV seropositivity has increased from 2.32% in 1988 to 8.90% in 1993.

The details will be presented at the conference.

40 ASSOCIATION OF H.I.V. INFECTION AND RESPIRATORY DISEASES INCLUDING TUBERCULOSIS

A.S. Bagga, A.M. Mesquita, Durga Lawande, A. Lamartine da Costa, Mangala Verenkar,
Goa Medical College,
Goa.

Patients of respiratory diseases admitted in the TB & Chest diseases hospital who were considered as high risk group for HIV infection were screened by ELISA test for HIV I and/or HIV II from June 1987 to July 1993. Patients who were reactive to ELISA were exposed to Western Blot test for confirmation. The details of the ELISA status, nature of the associated respiratory diseases, sexual history etc. will be presented.

32 patients (27 Males and 5 Females) were ELISA reactive. 24 were exposed to Western Blot (carried out at Pune). 13 were positive for Western Blot test and 2 were indeterminate of Western Blot. Of 32 ELISA positive, 25 patients were having pulmonary tuberculosis, 8 were respiratory diseases other than tuberculosis. One case did not show any lung disease, but was a full blown case of AIDS.

Out of 32 cases, 3 were foreigners and 29 were Indians, 3 of these 32 patients, have died in recent months.

41 TIME TREND OF HIV INFECTION AND TUBERCULOSIS

V.Sivaraman, Vengateswarulu, Parimala Bai, Angamuthu, Gurumurthy,
Tuberculosis Sanatorium,
Pondicherry.

Strong association between tuberculosis and human immune deficiency virus infection has been documented in many reports from different parts of the world.

In Pondicherry, sera from patients attending the sexually transmitted disease clinic and the TB Sanatorium are being examined for the presence of HIV infection. The data have been analysed to obtain the time trend of cumulative prevalence of HIV infection in two groups that is sexually promiscuous and chest symptomatic.

The age and sex distribution of dually infected will be compared with those infected with HIV only. The available data on bacteriological features and follow up of dually infected will be presented.

42 ASSOCIATION OF HIV AND RESPIRATORY DISEASE IN PONDICHERRY - A CLINICO RADIOLOGICAL PROFILE

V.K.Arora, K. Gowrinath, Amit Joshi,
JIPMER,
Pondicherry.

Human immunodeficiency virus (HIV) infection has now become a major global health problem. Its association with tuberculosis and other opportunistic infections of respiratory system have been well documented. The pattern, trend and response to chemotherapy of tubercular disease in HIV infected persons in developing countries differ from that of developed countries. The objective of the present study has been to find the clinico-radiological profile in respiratory cases infected with HIV in Pondicherry, South India. On a pre-set criteria, 865 subjects of tuberculosis and chest diseases attending the department between 1990-93 were screened for

HIV infection by ELISA and Western blot tests. Forty-four subjects who were diagnosed as having HIV infection were further analysed clinically and radiologically as well as their response to effective anti-tuberculous chemotherapy/antibiotic therapy. Limited autopsy was done in cases were pre-mortem diagnosis could not be made. The clinic-radiological profile, pattern and response to chemotherapy of these patients as they differ from developed countries will be presented.

43 PERIOD PREVALENCE OF HIV INFECTION IN HOSPITALISED TUBERCULOSIS PATIENTS

P.Ravindran, M. Joshi, R. Jose Raj, Kavitha Rajan,
B. Jayaprakash,
Medical College,
Trivandrum.

Introduction: Since the surveillance for AIDS began in 1981 the number of HIV positives detected are increasing day by day. HIV infection is considered to be the strongest risk factor for the progression of asymptomatic infection with Mycobacterium Tuberculosis to clinical tuberculosis.

Research Question: To assess the extend of HIV infection in tuberculosis patients.

Study design: Period prevalence survey.

Sample size: A total of 252 patients from the wards of Sanatorium for Chest diseases, Pulayanarakotta, Trivandrum, which included all newly admitted tuberculosis patients (pulmonary & extrapulmonary) from January 1993 to June 1993.

Inclusion/Exclusion Criteria: 1: All new admissions diagnosed to have tuberculosis. 2. Age group between 20-50 years. 3 Patients with non-tuberculous respiratory diseases are excluded.

Methodology: After collecting the demographic and socioeconomic data, detailed clinical history and examination was done. All patients were subjected to ELISA for HIV and those found positive were confirmed by western blot.

Results: Out of the 252, 8 (3.17%) have been found to be positive for HIV infection. The details will be presented.

Conclusion: This short period prevalence study gives us a single estimate of the prevalence of HIV Infection in Tuberculosis patients of Kerala - it was found to be 3.17%.

44 ROLE OF SIDDHA DRUGS IN HIV & TUBERCULOSIS

N.Kannan, C. Chandrasekhar, D. Selvaraj,
C.N. Deivanayagam,
Govt. Hospital of Thoracic Medicine,
Madras.

Introduction:

HIV I & II cause an increasing number of cases in our country. Large number of cases are seen in Maharashtra, Tamil Nadu and Manipur. There are no specific drugs in modern medicine for curing HIV disease. Clinical improvement and delay in deterioration has been noted with Zidovudine.

The Government of Tamil Nadu constituted the AIDS Monitoring Cell with experts in Siddha research and treatment to identify the role of Siddha Drugs in HIV diseases.

Two Hospitals were chosen for open drug trial:

1. Government General Hospital, Madras.

2. Government Hospital of Thoracic Medicine, Tambaram.

At G.H.T.M. the following drugs are administered to patients with serologically proved HIV I & II disease and concurrent Tuberculosis.

Patients are monitored with daily weekly and monthly parameters. There are 9 males and 11 females patients now on trial.

The following drugs were used: 1. Mahavalathi Lehyam, 2. Thuthuvalai Nei, 3. Thalisathi Vadagam, 4. Amukkura Churnam along with standard Anti tuberculosis drugs HREZ or KHERZ.

Result: Response to therapy was gratifying with weight gain and radiological improvement. Details will be shown.

Conclusion: The Siddha Drugs used in the trial cause improvement in most of the cases, with reference to general symptoms and weight gain, and sense of wellbeing.

The possible virostatic role will be discussed.

45 COPD & KITCHEN EDUCATION

R.S.Bhatia, S.S.Sibia, H.K. Sibia,
Ludhiana.

Chronic Obstructive Pulmonary Disease is a common world wide respiratory problem. It is more in ladies from lower middle and lower socio-economic group due to fumes from routine

fuels like cowdung cakes and firewood used by them.

While in males intensity of COPD was linked with smoking, in ladies it was reciprocally related to the size of the kitchen, ventilation facility and number of hours spent in Kitchen per day.

The hazards of cooking and extra care taken in constructing a kitchen, its ventilation, size and use of angities and chullas and selection of fuel are highlighted. Kitchen education for ladies is stressed and should go a long way to help professionals to win over the diseases.

46 MANAGEMENT OF FIFTEEN CASES OF TRACHEAL STENOSIS

Rajan Santhosham, R.K. Sasankh, Ranjan B. Singh, B. Chandrasekar, K.K. Ramalingam, S. Vasudevan, B. Krishna Rao,
Madras.

15 Cases of tracheal strictures are presented. 12 of them were operated. X-ray neck lateral view and Fibreoptic Bronchoscopy were much superior to CT scan for localizing the stricture. Patients had near total stricture from 1.5 cms to 4 cms from the vocal cord. Initially, distal tracheostomy was done under local anaesthesia followed by sternotomy. The innominate vessels were taped and anterior mobilization of distal trachea done. Proximally the isthmus of thyroid was excised and 1.5 cms of proximal trachea mobilised. By keeping the dissection close to the trachea, recurrent laryngeal nerve injury was prevented. Endotracheal tube was passed orally into the trachea and pushed into the distal trachea after removing the tracheostomy tube. The length of excised trachea ranged from 1.5 cm to 4 cm. Tracheal repair was done using interrupted vicryl sutures tied outside the lumen. The chin was fixed to the front of the chest wall by interrupted silk sutures. Nine patients had very good results. One patient had a long segment stricture short neck, previous sternotomy tracheomalacia and tracheo oesophageal fistula and was not a candidate for surgery & was treated with laser. Another patient with previous CABG was laserised and stenting done. One developed Quadriplegia secondary to neck flexion. Two had Trachea innominate artery fistula. One had recurrent stricture following infection and had to have tracheostomy.

47 ARDS AN EARLY CLINICAL INTERNAL AND CHEST MEDICINE RECOGNITION IS A REWARDING AID

Haranath, K., Hariharan, R.K., Sai Praveen, H.,
Apollo Hospital, Madras.

Adult respiratory distress syndrome (ARDS) represents a final common pathway of injury to a large variety of massive often unrelated insults to the lung. There is no single diagnostic test or marker for prediction of onset of ARDS, or for early detection. To confirm the diagnosis of ARDS a clinical description of the syndrome must be used as a definition. Although the final outcome of ARDS in general is not very bright an early clinical recognition of the problem facilitates early intervention, better prognosis and recovery. Clinical findings of dyspnoea, tachypnoea, hypoxemia and decreased lung compliance and diffuse new infiltrates in the skiagram of the chest remains the key features of this condition. Patients who belonged to the high risk group (Table 1) should be watched carefully for the onset of ARDS.

In the last 12 months there were sixteen patients with ARDS. The different causes are given in Table II Out of the five patients who survived three were picked up very early on clinical suspicion. The details of these cases are described.

The most interesting case was a female patient with proven Plasmodium Vivax Malaria developing ARDS in the second hospital day. The details are discussed.

48 DISSEMINATED TUBERCULOSIS IN CHILDREN AN EXPERIENCE WITH SURGICAL MANAGEMENT

DR. G. Ganapathy, Dr. T. Pandurangan,
Dr. H.R. Shanbhogue,
Sri Ramachandra Medical College and Research Institute, Madras.

Presenting two cases of colonic tuberculosis with unusual presentation is recorded. Both the children were Males. The first child is 3 years old, presented with H/O. fever of 1 1/2 months duration. After careful clinical evaluation and investigations a diagnosis of intraperitoneal abscess was made. This was a case of round worm perforation. Difficultly in management is high lighted.

A six year old child presented with non-bilious non-projectile vomiting of 1 year

duration. Clinical examination lead to no definite diagnosis in this child. Barium meal demonstrated obstruction in the 2nd part of Duodenum. Laparotomy showed a mass of tuberculus granuloma of Transverse colon infiltrating into the Duodenum producing obstruction (Duodenum was also involved).

In both cases x-ray chest showed hilar adenopathy. Involvement of colon in tuberculous disease process is uncommon in children. In our Pts. the presentation is still more unusual. The clinical considerations are stressed in this paper.

49 CALCIFICATION OF PERICARDIUM IN HEALTHY PERSON

Asha Moorthy, S. Chandrasekharan,
T. Veeraraghavan, Syed Ameen Ahmed,
V. Gurumoorthy, S. Lakshminarayanan, R. Natarajan.
Sri Ramachandra Medical College and Research Institute, Madras.

43 yrs old Male, presented with dysphagia of gradual onset of three years durtion. After a thought ENT, Check-up patient went to Radiology Department. Incidentally the plain X-ray Chest showed Pericardial Calcification and was sent to Cardiology Division. Routine Hb - 13.2 gms%, ESR - 24FHR mm, Blood Sugar - 72 mgs. ECG ST-T changes in inferior and lateral leads seen. Bronchoscopy normal. Upper gastro intestinal endoscopy revealed small discoloured area in circopharyngeal sphincter probably, due to calcification. Treadmill test , was normal with normotensive response and good effort tolerance. There were no progression of ST-T changes on Treadmill. Ultrasound abdomen, was normal. Echo with colour flow doppler showed normal L.V. function Pericardium was found to be normal. TEE, computed tomogram, will be discussed.

50 PLEURAL TUBERCULOMA

P. Moorthy, K. Rangarajan, S.M.R.G. Krishnamoorthy, Madras.

We report 2 cases of a typical Pleural tuberculosis, Patient 25 yrs and 12 yrs Male presented with a typical chestpain of Longer duration, Clinically on examination, he was found to be undernourished, Normotensive, Cardiovascular & Respiratory system was normal. Investigation revealed Haemogram Normal, ESR Raised, Mantoux test - Negative X-ray chest showed multiple rounded homogenous shadows in peripheral lung field, Pleural biopsy attempted, but no definitive clue was found, hence Thoracotomy proved the diagnosis. Biopsy reported to fibrocaseous tuberculosis. Response to Ant-TB regimen was not satisfactory prior to removal of tuberculoma, but, after thoracotomy & removal of tuberculoma, response to treatment was effective, indicates Pleural biopsy when missed can be proved by Thoracotomy.

51 SLEEP APNOEA SYNDROME-AN INDIAN EXPERIENCE

H.S. Hira,
New Delhi

In India there was no evidence that patients of sleep Apnoea Syndrome (SAS) existed, the research literature was devoid of it. As such, the present study was undertaken with the twin objective of establishing the existence of patients with SAS and also to study the effect of continuous positive airway pressure (CPAP) therapy.

Indeed, owing to lack of awareness, patients were not referred to sleep laboratory by the medical fraternity. Mass appeal through media paid dividends and 14 patients reported on their own within two months. All subjects had history of snoring and excessive day-time sleepiness (EDS) of several years. The clinical diagnosis of SAS was established in respect of each patient by submitting them to nocturnal polysomnography.

The mean number of apnoeas were 271 (range 47-532) and nine patients had apnoea index (A1) 20. All patients had a fall in SaO_2 by more than 4% and 5 dips per hour. Obstructive, central and mixed type of SAS was diagnosed in nine, four and one patient respectively. Three patients were found to have bradycardia during sleep. Five patients were put on nasal CPAP therapy and demonstrated a significant improvement in A1, mean duration of apnoeas and less fall in SaO_2 with tolerable and suboptimal critical CPAP level on initiation but subsequently all abnormalities were reversed with regular therapy for 3 months with same CPAP level.

It has been concluded that SAS does prevail in India and needs further exploration at multiple centres. Nasal CPAP was proved to be an excellent modality in patients who could afford it. The initial suboptimal and tolerable CPAP level applied was able to reverse the morbidity.

52 EFFECT OF FIBREOPTIC BRONCHOSCOPY ON PULMONARY FUNCTION

Gajanan Gaude, H.B. Rajasehkar
J.N. Medical College,
Belgaum.

Many studies have shown that after fibreoptic bronchoscopy there may be a deterioration in lung function, but it is not known whether this is due to the premedication, the topical anaesthetic or the obstruction produced by the bronchoscope. We have studied the effects of each part of the procedure on the spirometric measurements in patients with lung diseases (COPD) and in normal non-smokers. Measurements were made after premedication (atropine) in five subjects, after topical application of lignocaine to the nasopharynx in 10 control subjects, and after topical anaesthesia of the bronchial tree (350 mg Lignocaine) with and without the fibreoptic bronchoscope in 18 patients and 10 control subjects. Premedication had no effects. In normal subjects, lignocaine produced significant fall in FEV1, FVC, PEFR and PIFR ($P < 0.01$), and the insertion of a bronchoscope produced further significant fall ($P < 0.05$). In the patients however, although lignocaine produced significant fall in FEV1, FVC, PEFR and PIFR ($P < 0.01$), there was no significant decrease when the bronchoscope was inserted. Topical spray of lignocaine to the nasopharynx in control subjects produced no change in pulmonary function. The details will be discussed.

53 ETIOPATHOGENESIS OF ASTHMA-CHANGING CONCEPTS

N.Somu, D.Vijayasekaran, T.L.Rathnakumari,
L.Subramanyam, A. Chandrabhushanam,
Institute of Child Health,
Madras.

Wheeze occurs in conditions like asthma and bronchiolitis and also in fungal, viral and bacterial infections. In 104 children with wheeze, 80% of children with tuberculosis and wheeze did not have wheeze after specific therapy whereas 97% of asthmatic children continued to wheeze even after one year, probably some underlying unknown infection still exists. In another study, 130 children were followed up for one year. Group I (65) had tuberculosis (positive Mantoux, history of contact and radiological lesion) and Group II (65) had wheeze but etiology not known after one year. 97% of Group I (ATT given) did not have wheeze but 83% of Group II (treated symptomatically) continued to wheeze. Underlying infection may be the factor responsible for causing the wheeze. Complete remission in some children shows that it is not a hereditary disease primarily. On the basis of these observations we postulate a hypothesis that a genetically predisposed child when infected by a specific agent (now unknown) produces inflammation of the respiratory tract resulting in altered cellular and enzymatic response (ACER) thereby producing an altered cellular state leading to bronchial hyperreactivity. When this hyper reactive bronchial tree with altered cellular state is exposed to any aggravating factor it results in the release of a mediator which produces bronchial constriction manifesting in an abnormal reaction - wheeze. When infection is treated with specific measures, inflammation ceases and ACER reverts back to NCER. At this stage on exposure to various known aggravating factors there is no abnormal response. So, no wheeze. The basis for support for this hypothesis is discussed in detail.

54 PULMONARY MANIFESTATIONS OF CHORIO-CARCINOMA

Manjari Matah, S.C., Samaria J.K,
Insitute of Medical Science, B.H.U.,
Varanasi.

The study includes ten biopsy proved patients of chorio-carcinoma who presented with various symptoms pertaining to pulmonary diseases. All the patients were either those who attended chest OPD or were admitted cases in the Gynaecology ward of the Institution of Medical Sciences Hospital, Banaras Hindu University, Varanasi.

All the patients were in their reproductive age group i.e., ages ranging from 21 years to 40 years. Five patients (50%) were preceded by molar pregnancies. For pulmonary symptoms all the patients were investigated as follows – X-ray chest PA view and if required lateral view, Blood – TLC, DLC, Hb, ESR, Blood Sugar Fasting, A Glucose tolerance test was performed wherever required. Sputum examination for AFB, for malignant Cytology and Sputum culture and sensitivity was performed in all the patients.

Following were the presentation of the patients – 6 patients (60%) presented with cough, expectoration and haemoptysis. On investigation they were all found to have single or multiple rounded shadow distributed in one or both the hemithorax. Two patients (20%), who presented

with dyspnoea and chest pain were found to have haemorrhagic pleural effusion with positive malignant cytology. Rest two patients (20%) presented with grave general condition associated with haemopneumothorax.

It is concluded that single or multiple rounded shadow on x-ray is the commonest presentation of chorio carcinoma, followed by pleural effusion and haemopneumothorax.

55 HIV AND RESPIRATORY DISEASE ANALYSIS OF 16 CASES

S.Devanathan, U.Krishna Rao, Vijayalakshmi Thanasekaraan,
SRMC & RI, Madras.

A total of 1405 adult patients with a high index of clinical suspicion of HIV infection, referred from Pulmonology, General Medicine, STD and Psychiatry Departments of Sri Ramachandra Medical College & Research Institute had their sera analysed at the Microbiology Dept. SRMC & RI, Porur, Madras 600 116, over a period of 21 months. The analysis revealed HIV seropositivity in 32 pts. of which 16 attended pulmonology department for respiratory problems. The diagnosis of HIV was established in all 16 cases by ELISA and confirmed by Western Blot in 7 of them. The clinical picture revealed a whole range of respiratory manifestations with a predominance of cough, minimal expectoration, fever & dyspnea. The laboratory investigations included sputum, blood examinations, Pleural fluid cultures, lymph node biopsies, Tuberculin Test, Bone marrow examinations and Chest Skiagrams. The Chest Skiagram formed an integral part of HIV infected patients with a wide range of parenchymal, hilar and pleural involvement. A limited autopsy performed in one of the 16 cases who had Multiple Myeloma showed protean manifestation of HIV disease multisystem involvement with opportunistic infections and amyloidosis of lung and kidney.

56 UNCONTROLLED TRIAL OF CIPROFLOXACIN IN RETREATMENT OF PULMONARY TUBERCULOSIS

Sukesh Rao,
Dr. T.M.A. PAI Health Complex,
Udupi.

Fluoroquinolones are amongst the newer drugs which have shown promising antimycobacterial activity both in vitro and in vivo. These include ofloxacin, ciprofloxacin, pefloxacin etc. Ciprofloxacin was tried in 16 retreatment cases of pulmonary tuberculosis who had either failed on standard drugs (5 patients) or had past history of inadequate or irregular therapy (8 patients) or developed serious side effects to standard drugs (3 patients). The companion drugs included isoniazid & thi acetazone in all patients together with ethambutol in 3 patients. 13 patients showed satisfactory clinical, bacteriologic and radiological response. 3 patients' sputum remained positive even after 6 months of therapy and hence were termed 'failures'. Tolerance profile was good. Thus, ciprofloxacin may have a role in retreatment of pulmonary tuberculosis as a companion drug in few cases, along with other drugs.

57 PREVALANCE OF MYCOSES IN SPUTUM AND NOSE CULTURES OF IMMUNOSUPPRESSED INDIVIDUALS

Sai Praveen, Syed Saifuddin M Razai,
T.S. Viajaylakshmi, Helen P.S. Manuel,
Insitute of Microbiology, Madras Medical College,
Madras.

To determine the prevalence of Fungi in sputum & nose cultures & discuss their possible role in pulmonary mycoses, 75 clinically immunosuppressed patients aged 12-65 years, including 24 HIV positive persons, 24 renal transplant recipients on immunosuppressants, 27 patients with hematologic malignancies on chemotherapy and 28 normal matched controls were studied.

Gram staining, lactophenol mount of KOH digested sputum, smear for M.tuberculosis, inoculation of sputum into Sabouraud's dextrossugar for fungi was done. Nasal swabs were promptly inoculated into Saboraud's broth.

Candida was seen directly in 4 cases & hyphae in 2. Fungi grew in 78/125 cultures (62.4%) Candida species (49.6%), A niger (6.4%), A flavus (3.2%) compared to 4/28 (14%), of control nose cultures, filamentous fungi grew in 43/75 (57.3%) patients – A flavus (25.3%), A niger (24%), others (8.1%). 94% of patients with documented pulmonary tuberculosis grew fungi, including 12/24 (50%) of HIV positive individuals. 26% of Candida isolates showed pseudomycelia, suggesting invasive disease & C.albicans was the commonest species.

Although sputum is not the ideal specimen, even a single isolation of opportunistic fungi in

the immunosuppressed is significant & nose cultures are indicators of invasive aspergillosis. These cheap, noninvasive investigations can be used prior to other methods of detecting pulmonary mycosis.

58 ALLERGIC BRONCHO-PULMONARY ASPERGILLOSIS

Rajinder Singh Bedi,
Patiala

Of the many respiratory illnesses seen in this part of the world, tuberculosis still occupies the top position. However, publication of isolated case reports and a few well documented series from India make it certain that ABPA too is fairly common in our country. Still many clinicians and radiologists are unfamiliar with details of this entity.

In this paper, clinical, radiological and laboratory details of 20 cases of ABPA diagnosed over a 6 year period (1987-92) will be presented. Reasons for delayed diagnosis and remedial measures for ensuring an early diagnosis will be discussed.

59 AN EXPERIENCE WITH BLIND PLEURAL BIOPSY USING A TRUCUT NEEDLE IN MODERATE TO LARGE PLEURAL EFFUSIONS

D.J. Christopher, J.V. Peter, A.M. Cherian
Christian Medical College,
Vellore.

We report our experience in performing blind trucut needle biopsy in patients with moderate to large exudative pleural effusions. In the 26 patients who were studied, the diagnostic yield with this procedure was 75% (12 out of 16 patients) in tuberculosis and 67% (4 out of 6 patients) in malignancy. The procedure was not associated with any complications. We conclude that blind trucut biopsy of the pleura is both safe and effective for the diagnosis of pleural diseases.

60 PEFR AND FEV1 : IS THE BEST EFFORT SAME?

S. Jayakrishnan, Ranjana K. Jayapal, Anil C Methew,
P.S.G. Institute of Medical Sciences,
Coimbatore.

PEFR and FEV1 are often used in the same context. But peak flows may not be obtained while measuring FEV1. We studied 100 consecutive patients who underwent computerised spirometry to observe the reliability of obtaining PEFR and FEV1 from the same effort (Flexilflo: PK Morgan, England)

In 50% of the asthmatics, 48% of patients with COPD, 70% of patients with other diseases and 66% of normal people, best values of PEFR and FEV1 were obtained from different curves. Further analysis of the difference in values of PEFR & FEV1 (independently,) between the best value and the value from the best loop of the test were done. FEV1 difference was insignificant (an average of mode value 0.01L), whereas PEFR showed a wide fluctuation which followed a positively skewed distribution with a mode value of 10 L/mt. For values less than this, the means (SD) of the difference is 6.65 (3.28) and for values above 50.9(32.3), the difference between the two is significant ($P < 0.001$).

From the above two sets of observations we conclude that the best value of PEFR will not correspond with the value obtained from the best loop. So in studies where PEFR is analysed it should not be taken blindly from the best loop, but the highest value recorded from any of the curves should be chosen.

61 EFFECT OF POSITIONAL PRECAUTIONS ON THE INCIDENCE OF PNEUMOTHORAX. FNA OF THE LUNG

N.Gunasekaran, A.S.Natarajan, A.Rathinsabapathy,
A.Sundaramoorthy
Govt. General Hospital,
Madras.

Thirty cases of clinically and radiologically suspected lung parenchymal malignancy were taken up for this study. All these cases had parenchymal masses measuring more than 2 cms, out of these 9 cases had lesion in the periphery of the lung parenchyma i.e. within 2 cms from the chest wall. All 30 cases required only one pleural puncture for aspiration.

Percutaneous fine needle aspiration cytology (PC FNAC) using 24 gauge needle was done in 21 out of 30 cases with fluoroscopy guidance and 9 cases without guidance. After aspiration the patients rolled off from the procedure table on to a stretcher and were placed with puncture site down for a period of at least one hour. Coughing, talking and all other forms of activities were restricted during these period.

Among the 30 cases aspirated, only one case (3.3%) developed shallow pneumothorax which did not require tubing or surgical intervention.

Decreased incidence of Pneumothorax in this technique is due to:

1. The smaller alveolar size in dependent portions of the lung.
2. Reduction of alveolar-to-Pleural pressure gradient achieved at the puncture site.
3. Diminution contact between the visceral & parietal pleural surface which acts as a physical barrier to further air leakage until the puncture site heals by means of fibrous deposition.

Thus by following puncture site dependent (Roll over) technique and restriction of coughing, talking and other activities, the incidence of pneumothorax was found to be minimal when compared to previous reports in Literature.

62 FIBEROPTIC BRONCHOSCOPE IN TWENTY-FOUR PATIENTS PRESENTING WITH HAEMOPTYSIS WITH NORMAL CHEST X-RAY

R.K. Sharma, M.A. Desai, M.S. Saharabude, V.N.Desai
Mahatma Gandhi Memorial Hospital,
Bombay.

Fibreoptic Bronchoscopy was performed in 24 patients presenting with Haemoptysis who were clinically and radiologically normal. In 14 patients (58.3%) a definitive diagnosis was made as the cause of haemoptysis. In 7 patients (29.1%) no abnormality was detected and in 3 patients (12.5%) the procedure was abandoned due to various reasons. It was concluded that fiberoptic bronchoscopy is a safe and useful procedure in patients with haemoptysis who were clinically and radiologically normal.

63 RETRIEVAL OF BROKEN ANGIO-CATHETER FROM PULMONARY ARTERY WITH THE HELP OF BRONCHOSCOPE BASKET

Amir M Khoja, J.S.Hiremath, C.N.Makhale, G.M. Shah
Pune

In a 19 year old boy with severe unstable angina, Coronary angiography was done, with pulmonary artery catheter kept for hemodynamic monitoring. While removing this catheter it broke and the tip went in to the left pulmonary artery.

Using the basket of bronchoscope the broken piece was removed successfully. The procedure is shown with photographs.

64 COMPARISON OF SIX PROGRESSIVELY SIMPLER METHODS FOR MAXIMUM EXPIRATORY FLOW RATE EVALUATION

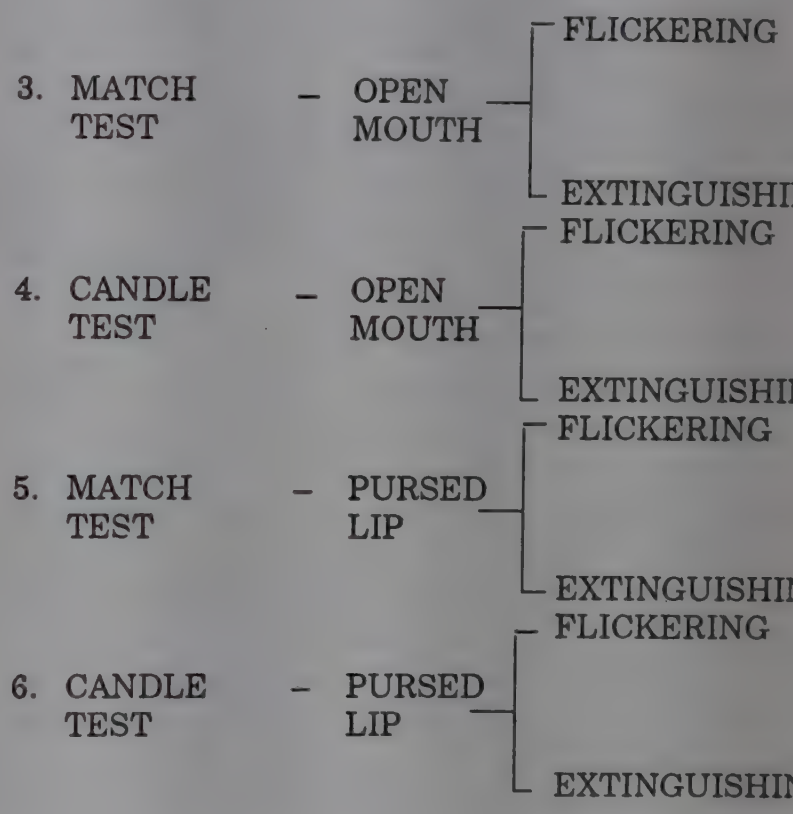
S.Dinesh, A. Sundermoorthy, Gajalakshmi,
A.S. Natarajan
Government General Hospital,
Madras.

AIM:

1. Relative value of the four bedside tests in the evaluation of peak expiratory flow rate (PEFR)/Airflow limitation (AFL) in airway disease.
2. To find out among the various bedside tests which one is closest to the Wrights Peak Flow Meter (PFM) value.

METHODS:

1. PEFT Estimation by Wrights PFM.
2. PEFT Estimation by Mini Wrights PFM.



In the flame test results were expressed as the farthest distance the patients could flicker and blow out the flame by open and pursed lip.

Patients with moderate to severe AFL and those who could not perform the FVC manouvre, could easily follow and do these bedside tests.

The candle test appears to be closely correlating to PEFR estimation by Wrights PFM. It is also good in assessing the degree of AFL.

Patients with severe AFL were not able to extinguish the flame by open mouth, but could do it by pursed lip method.

The match test similarly is useful in assessing all grades of severity of AFL.

Conclusion:

This study thus clearly shows that the bedside flame tests especially, the Candle Test, Flickering and Extinguishing by pursed lip is almost comparable to the wrights, PFM value and is easily understood by majority of our patients.

65 LUNG FUNCTIONS IN NORMAL INDIAN CHILDREN

Vasant M. Shetye, Rohini V. Chowgule
Bombay Hospital Institute of Medical Sciences,
Bombay

There is a scarcity of data on lung function with flow-volume curve in normal Indian children. 540 school children between age group 6 – 15 years were selected. The students belong to middle and lower socio-economic group. The students with past and present history of cardio respiratory illness, URTI, chest deformity, poor co-operation and over age were excluded. Thus 389 normal children (Boys 206, Girls 183) were included in the study. Portable Spirometer with pneumotach was used. Height, Weight and Age was noted for each student. Flow-volume manouvre was performed and 3 acceptable trials recorded for each subject. The test with highest sum of FVC and FEVI was used for analysis. Data was recorded for Forced Vital Capacity (FVC), Forced Expiratory Volume in one second (FEV1), Peak Expiratory Flow Rate (PEFR) and Mid Expiratory Flow rate (FEF 50% and FEF 25% – 75%). Data for lung function variables was plotted against height and age. These variables show positive correlation with age and height. Stepwise regression analysis was perfomed. Height showed more correlation. Boys have higher values than girls. Western studies show higher values than our study. North Indian study also showed higher values than our study. Study from Ahmedabad shows lower values than our study.

66 FOLLOW UP OF 158 CHILDREN WITH LUNG CYSTS

N.Somu, A. Balachandran, D. Vijayasekaran,
L.Subramanyam, & A.Chandrabooshanam,
Institute of Child Health,
Madras.

Among the respiratory problems in children lung cyst is not an uncommon entity. The diagnosis of lung cyst is feasible only with x-ray chest. The management of lung cyst is mainly conservative. The aim of this study is to understand the clinical presentation, course of events, time taken for cyst clearance and complications.

Lung cyst was observed in 158 children who were attending the chest clinic of ICH from March 1987 to Sep. 1993. They were reviewed every month/quarterly and the clinical features, frequency of respiratory infection, associated complication were recorded. During follow up chest skiagram was takén. The main presenting symptoms at the time of hospitalization are cough, fever & breathlessness. Recurrent respiratory infection was present in 83% cases. 36 had radiological evidence of cyst on admission. Only 11% presented as isolated cyst without any radiological lesion. 48.5% developed lung cyst with pneumonia and pyopneumothorax. The rest developed cysts within 2-3 weeks while on treatment. Complication observed were osteomyelitis (5), bronchiectatic changes (4), collapse, broncho pleural fistula meningitis and T.B. cavity one each. 49% of the cysts cleared within 6 months, 8.1% cleared between 6 months to 1 year and 33% persisted beyond 1 year. During follow up 26 (18.2%) children revealed persistent pneumonic lesions in chest skiagram. All these cases were treated with conservative management with antibiotics, supportive measures, physiotherapy and nutritional support. Surgical excision of cyst was undertaken in 5 children in whom recurrence of cyst was observed.

67 CLINICAL PROFILE OF CHILDHOOD TUBERCULOSIS – THE ROLE OF B.C.G. SKIN TEST

K.V. Ramana Rao, Satyabhama Devi, T. Prakasa Rao
V.S.S. Medical College, Burla,
Orissa.

120 cases of childhood Tuberculosis were analysed in present study. 50% patients were in the 0-4 year age group, with a male preponderance. Measles, chicken pox and diarrhoea were the important predisposing factors. Contact history was obtained in only 30% cases. The most common presentation in the present study, was Primary complex, which was seen in 76% of all the childhood Tuberculosis, most common was Pulmonary Tuberculosis, which was seen in 55% patients. Next in order was Neuro-Tuberculosis, which was seen in 21%. Complications of childhood Tuberculosis were seen in 54% but fatality was seen in only 5.8%. The B.C.G. Skin Test ws observed to be more

specific to detect Tubercular hypersensitivity as compared to Tuberculin test. It has been observed in our present study that B.C.G. vaccination did not prevent childhood Tuberculosis but the incidence of fatal complications met with in childhood Tuberculosis were distinctly lower in B.C.G. Vaccinated group.

68 VALUE OF ANTIBIOTIC THERAPY IN TUBERCULIN POSITIVE CHILDREN WITH PARENCHYMAL LUNG LESIONS

N. Somu, D. Vijayasekaran, T.P. Ashok,
T. Ratnakumari,
Institute of Child Health,
Madras.

Management of tuberculous lung parenchymal lesion remain a problem. Pulmonary parenchymal lesions in a Tuberculin positive child always tempt the physician to suspect such lesion could be a tuberculous disease but our experience is contrary to this. This study is aimed to analyse the outcome of antibiotic therapy in tuberculin positive children with parenchymal lung lesion before instituting anti tuberculous therapy (ATT).

305 tuberculin positive children with parenchymal pulmonary lesions like pneumonia, bronchiectatic changes, (cylindrical) minor fissure opacification were registered in the TB clinic. Serious forms of TB like miliary, cavity, segmental lesions and children with Gr. III, IV under nutrition were excluded. Three weeks of oral antibiotic therapy with Erythromycin, Chloramphenical for the first 2 weeks and Cotrimoxazole in the third week were administered before instituting ATT. Skiagram chest was repeated after antibiotic therapy and results were compared.

60.7% of children with pneumonic 56.9% with bronchiectatic changes and 62% with minor fissure opacification showed complete radiological clearance. In 11.8% of children the skiagram revealed partial radiological clearance, they were grouped as non responders to antibiotic therapy.

In tuberculin positive children with parenchymal changes, there was radiological clearance in 60%, hence a course of antibiotic therapy before instituting ATT will help us to differentiate TB infection from other bacterial infections.

69 DIAPHRAGMATIC EVENTRATION IN CHILDREN - AN EXPERIENCE

H.R. Shanbhogue, P. Pandurangan, G. Ganapathy,
SRMC & RI, Madras.

A total of 11 cases were seen at this hospital in the last 3 yrs, with Diaphragmatic Eventration. Among these only four cases required surgical intervention. One among them was a new born. These children presented with recurrent respiratory tract infection in older age group & were identified as Diaphragmatic eventration after complete clinical, in particular Radiological Investigation. In the new-born period respiratory distress was the main presenting feature. 7 cases were not subjected to surgery as their clinical symptoms did not warrant operative intervention. These children are thriving well.

In this paper, the indication for surgery is discussed. Just an identification of the disease is not an indication for surgery, follow-up of these children initially by paediatricians & later by pulmonologist is highlighted.

70 AWARENESS AND ATTITUDE OF PARENTS TOWARDS WHEEZING CHILDREN

A. Ramnath, M.B. Raghu, S. Balasubramaniam,
SRMC & RI, Madras.

KAP of parents of children with recurrent wheezing was assessed by analysing the parent's response to a prepared Questionnaire. The Socio-Economic status, Type of housing and presence of a family pet were unrelated to symptom prevalence. Considerable evidence for underdiagnosis and undertreatment was observed. In the present study only half of the parents were aware of the exact nature of their child's problem. One fourth parents think it is asthma, as they themselves or elders in the family had asthma. Only about one fifth of parents were well informed about the illness and its implications in day today life.

60% parents never know what drugs were given and only few parents were aware of preventive measures and Inhaler, Nebuliser therapies.

Parents attributed the following as the pecipitating factors for wheezing namely, fruits, sweets, headbaths and exertion at play.

There is a resistance among parents for their children to be labelled as asthmatics, and it is convenient and aggreable for the medical practitioners too.

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71 AGENESIS OF LUNG - A CASE REPORT

J.S. Swarnkar, S. Kirolikar, C.S. Ghosen,
J.L.N. Hospital & Researach centre,
Bhilai.

A 12 year old boy of average built presented with shortness of breath, chronic cough of 6 months duration. His X-ray chest PA view had shown complete opacification of left hemithorax with emphysematous right lung. On fibreoptic Bronchoscopy it was found that the trachea had continued as the right main bronchus without even an outpouching on the left side. This finding was substantiated by CT scan. The Ecdocardiography had revealed borderline pulmonary hypertension but no congenital cardiac abnormality was detected. Apart from this no other congenital abnormality was detected on ultrasound abdomen also.

The case is being presented for its rarity. The details of the case will be highlighted during the presentation of the paper.

72 STUDY OF EFFICACY OF SALMETEROL A NEW LONG ACTION BETA2 AGONISTS BRONCHIAL ASTHMA

A.A. Mahasur, P. Sundaram, V.P. Kolhatkar,
Department of Chest Medicine, CVTC, KEM Hospital,
Bombay.

Salmetrol is a new Beta2 agonists for innalation which has been shown to have a longer duration of action after single dose. Twenty-five patients suffering from Bronchial asthma were studied for the efficacy of inhalation of salmetral for a period of 10 days. It was observed that at the end of study, 17 patients improved clinically. The PFT of these patients showed significant improvement in FVC, FEVI and PEFR. None of these patients show any side effects. Salmetrol has been found to be having longer duration of action lasting for 12 hours and is good bronchodilator agent.

73 STUDY OF INHALATION STEROIDS IN THE MANAGEMENT OF BRONCHIAL ASTHMA

Sundeep S. Salvi, D.R.Joshi,
B.J. Medical College,
Pune.

Asthma is a major problem world wide. In the developed world and increasing in the developing world its prevalence and chronic nature make it the most pressing respiratory condition with which the physicians have to deal. These are revolutionary times for patients with asthma. The disease is no longer considered the consequence of just bronchospasm or hyperreactive airways. Rather, even in its mildest form asthma is considered an inflammatory disease and the increased bronchial reactitivity that characterizes asthma is thought to be a consequence of the underlying airway inflammation. With these concepts, there have been significant changes in the therapeutic strategies. Antiinflammatory drugs by diminishing the airway inflammation reduce the recurrence of symptoms and progression of the disease thereby further decreasing the need for bronchodilator therapies. Logically, therefore antiflammatory drugs rather than bronchodilators should be the primary therapeutic approach to asthma. With the advent of aerosol corticosteroids the side effects of systemic route have greatly diminished thereby making it a relatively safe route for prolonged use.

To investigate this new strategy in the treatment of asthma we undertook a 1 year clinical trial at the Sassoon General Hospital and KEM Hospitals, Pune. It was an open comparative clinical trial consisting of two groups of 30 patients each. One group received only inhaled bronchodilators and the second group received inhaled bronchodilators & inhaled steriods. Follow up was done every 15 cases with the recording of objective parameters like FEV_1 FEV_1/FVC & PEFR along with daily symptoms and subjective assessment. The patients in the inhaled steriod group showed significant and persistent improvement in both objective and subjective parameters than the other group. Also the patients in these group that required additional treatment or hospitalization was significantly less as compared to other group. The present study shows that the use of inhaled steriods in the treatment of asthma results in greater improvement in both objective and subjective variables than does regular treatment with beta agonists alone. This is in accordance with the recent concept that asthma is primarily an inflammatory disorder and that corticosteroids form the mainstay in the treatment of asthma.

74 EFFECT OF IPRATROPIUM BROMIDE IN BRONCHIAL ASTHMA

Aratrika Ghosh, V.S. Taskar, A.A. Mahashur,
Dept. of Chest Medicine, CVTC, KEM Hospital,
Bombay.

The effect of inhalation of ipratropium Bromide alone and in combination with

salbutamol was evaluated. 20 patients suffering from bronchial asthma were treated with Ipratropium Bromide and Salbutamol. Both the groups received the medication for a period of two weeks. The patients were studied for the clinical and PFT response before and after the study. It was observed that in patients receiving Ipratropium Bromide there was no significant improvement in FEV_1, FVC while there was significant improvement in the PEFR measured at 9 p.m. after the inhalation of two puffs of ipratropium bromide aerosol. In patients who received ipratropium bromide and salbutamol showed an early response and the response was maintained throughout the period of the study. Since PEFR is the measure of large airway function, and Cholinergic mechanisms are primarily involved in airflow obstruction at the large airways, improvement in PEFR by Ipratropium Bromide highlights its role as a useful Bronchodilator in patients in whom vagal reflexes are responsible for the provocation of bronchoconstrition. Addition of Salbutamol with Ipratropium Bromide improves the action of bronchodilation in patients suffering from Bronchial Asthma.

75 FACTORS INFLUENCING THE PREVALENCE OF ASTHMA IN FIRST DEGREE RELATIVES OF ASTHMATICS

Kumari Indira, K.S., P. Ravidran, M. Joshi,
P. Sundaram, Sudheendra Ghose, Jose Raj,
Medical College, Trivandrum.

Introduction: The mode of inheritance of asthma is believed to be multifactorial. With proper history taking and drawing of family pedigree it is possible to determine the empiric risk in first degree relatives.

Research Questions: To determine the prevalance and identify the risk factors in first degree relatives of asthmatics.

Study Design: Descriptive

Sample population: Patients attending allergic clinic of respiratory medicine dept. of medical college, Trivandrum from July 1992 to August 1993.

Sample size: 100 consecutive patients with positive family history of asthma were included.

Inclusion & Exclusion Criteria: Those who satisfied the definition of asthma with age of onset below 40 years.

Data Collection: Demographic variables, detailed history of asthma, possible precipitating factors, details of treatment, degree of disability and presence of other alergic illnesses were recorded. Results of skin testing was also recorded. A family pedigree is then drawn.

Results: Mean age of the patient was 30.7 (M=30.54, F=30.86). Mean age of onset of asthma was 17.1 (M15.3, F=18.9). Skin test positivity was 48% (M=38%, F=58% which was statistically significant (P<0.05). Prevalence in first degree relatives was 101/477 (21.2%), Male probands = 20.6%, Female probands = 21.7%. Prevalence in first degree relatives of skin positives was 59/229 (25.8%) and among skin test negatives was 28/169 (16.6%). This was statistically significant (P-0.05). Classification according to severity of asthma and involvement of first degree relatives was not statistically significant (Mild - 17.29%, Mod - 20.1%, severe - 24.24%). Prevalence in siblings when one parent was affected was 23/96 (24%) and when no parents were affected 10/69 (14.5%).

Conclusion: Females showed a higher percentage of skin test positivity. Risk assessment was done for first degree relatives based on skin test positivity (odds ratio = 1.75 significant) and severity of disease (odds ratio = 0.65 - not significant). Involvement of siblings with at least one parent affected and none affected was also performed (odds ratio = 1.86 not significant).

Relevance: With proper history taking it is possible to identify high risk persons for developing bronchial asthma. In future this might help in genetic counselling to prevent the disease to a considerable extent.

76 TREND OF TUBERCULOSIS INFECTION AMONG SCHOOL CHILDREN OF SOUTHERN KERALA

M. Joshi, P. Ravindran, C. Sudheendra Ghosh,
Medical College,
Trivandrum.

Objectives: The impact of Tuberculosis control programme can be assessed by finding the time trends in the prevalence of Tuberculin positivity in a community. The objective of this study was to determine the trends in the Tuberculin positivity in school children and to know whether this is modified by BCG vaccination or residential location.

Design: Three surveys repeated at 5 year intervals.

Setting & Participants: Children of 5, 10 and 14 year age group from urban and rural schools.

Method: Tuberculin testing was done and sensitivity assessed in all the three surveys by using the WHO standards. The tuberculin was obtained from the same laboratory (Guindy, Madras) and the same dose of tuberculin (one TU) was used in all the surveys. The cut off point was also the same in all (12 mm).

Results: 2304 subjects in 1981, 2451 in 1986 and 3443 in 1991 were surveyed. The sex ratio and the proportion of urban and rural children in the three surveys were comparable. The tuberculin poisitivity in the three surveys was 7.0%, 5.3% and 3.4% respectively. The decline in prevalence was significant. The difference between the first and second surveys was 1.7 (95% CI, 0.4-3.0) and the second and the third surveys was 1.9 (95% CI, 08-3.0). The tuberculin positivity was not affected either by BCG vaccination or by residential location, be it rural or urban. Analysis in the different age groups showed that the maximum decline was at 10 years.

Conclusion: The tuberculin positivity is declinining in Kerala School Children. This cannot be generalised because of the special setting of health care system in Kerala.

77 BACTERIAL GROWTH PATTERNS IN INTENSIVE RESPIRATORY CARE UNIT; CHANGING TRENDS

Nittin Pandurang More, Amite U. Athavale, Nirupama Singh, A.C. Shah, Alka Gogate, L.T.M.M. College & L.T.M.G. Hospital, Bombay.

Pulmonary infection is a commonly encountered problem in intensive care setup. It may be hospital acquired or presenting itself in respiratory failure, to intensive care unit. We studied hospital acquired infection occuring in intensive respiratory care unit over a period of last one year. Bacterial growth patterns from respiratory tract secretions were obtained from these patients. In 405 samples that were studied klebsiella was found to be predominant organism (34.10%). Other organisms grown include Pseudomonas (32.1%), Staphylococcus aureus (25.25%), other gram -ve organisms i.e. E.coli, Proteus (6.56%), Streptococcus pneumoniae (1.97%). We compared this data with previous similar study done in 1987. In 1987 growth pattern showed predominant organisms to be staphylococcus aureus (32.13%), others included Pseudomonas (23.21%) Klebsiella (21.43%) E.Coli (19.64%).

The antibiotic sensitivity pattern was also studied, Klebsiella was found to be predominantly sensitive to only Netilmycin, Cefotaxime, Amikacin & Ampicillin - Sulbactum. 13.46% was resistant to all tested antibiotics. Pseudomonas showed similar pattern with few organisms sensitive to Piperacillin. 6.12% were resistant to tested antibiotics. Staphylococci were sensitive to Netilmycin, Ampicillin-Sulbactum, Cefotaxime, Pefloxacin, Amikacin, Erythromycin, Piperacillin & in some instances, Ampicillin & Gentamicin. 38% were resistant to all tested antibiotics. E.Coli & Proteus showed sensitivity to mainly Amikacin & Netilmycin. In the previous study Klebsiella, Pseudomonas, Staphylococci & E.Coli were sensitive to Gentamicin, Amikacin, Chloramphenicol.

Changing bacterial growth patterns have been found over a period, with largely Klebsiella & Pseudomonas taking over and being resistant to antibiotics to which they were routinely sensitive. Details of our findings will be presented.

78 USE OF VANCOMYCIN IN SELECTIVE KIRCHNER'S LIQUID MEDIUM FOR CULTURE OF TUBERCLE BACILLI.

Sara Mathew,
TRC, Madras.

Selective Kirchner's liquid Medium (SKLM) has been used successfully to augment the isolation of tubercle bacilli in paucibacillary extra pulmonary specimens. However, gastric lavage cultured from children in this medium, suffered heavy loss of results from contamination the chief contaminant being aerobic spore bearers. Vancomycin is known to be bactericidal to Gram-positive cocci and most of the bacteria belonging to Bacillus sps. and is inactive against M. Tuberculosis. The usefulness of incorporating this antibiotic in the SKLM was investigated in a controlled comparison of 221 gastric lavage specimens and 26 scanty positive sputum samples cultured in the medium with and without vancomycin. Results showed that Vancomycin significantly reduced the contamination without affecting the detection of paucibacillary positives.

Thus vancomycin provides a much needed means for containing contamination in culture of mycobacteria.

79 RISK FACTORS FOR SEVERE DISEASE IN PULMONARY TUBERCULOSIS

J.Balachandran, M. Joshi, P. Ravindran, P. Sundaran, C.S. Ghosh, R. Jose Raj, K. Anithakumari, Kumari Indira,
K.S. Medical College, Trivandrum.

Introduction: With the advent of effective chemotherapy, the mortality from tuberculosis has decreased. However the morbidity is still high. It is the severe form of the disease which contributes to high morbidity after successful chemotherapy (eg. Bronchiectasis, Open negative syndrome, Mycetoma). Hence the identification of risk factors may help early diagnosis by screening high risk group and early intervention to limit disability.

Objective: To identify the risk factors for severe forms of pulmonary tuberculosis.

Design: Case Control Study.

Setting: Department of Respiratory Medicine, Medical College, Trivandrum and State T.B.Centre, Trivandrum.

Patients: Newly diagnosed sputum positive cases who have 'Far Advanced Lesions' as per American Thoracic Society Criteria. Controls are patients with "Minimal Lesions".

Outcome Measures: Known prognostic variables such as demographic characteristics, B.C.G. vaccination, close contact with known cases, smoking, alcoholism and co-morbidities like diabetes mellitus and COPD were assessed.

Results: Increasing age (P = 0.0069 or 2.89, 95% CI 1.34 - 6.23) Smoking (P = 0.0269 or 2.04; 95%, CI 1.09 - 3.85) Alcoholism (P = 0.0033 or 2.76; 95% CI 1.40 - 5.44), Diabetes Mellitus (P = 0.441 or 3.35, 95% CI 1.03 - 10.89) and COPD (P = 0.0006 OR 6.05; 95% CI 2.17 - 16.89) were associated with severe disease. Sex, economic status, Education or Area of residence had no relationship. A protective effect was shown by B.C.G. vaccination (P = 0.0008 or 0.076; 95% CI 0.017 - 0.341).

Conclusion: Prognostic variables like smoking, alcoholism, diabetes mellitus, COPD and age are risk factors for severe disease in pulmonary tuberculosis.

Relevance: Patients with risk factors could be identified to facilitate early diagnosis, prompt treatment and limit disability.

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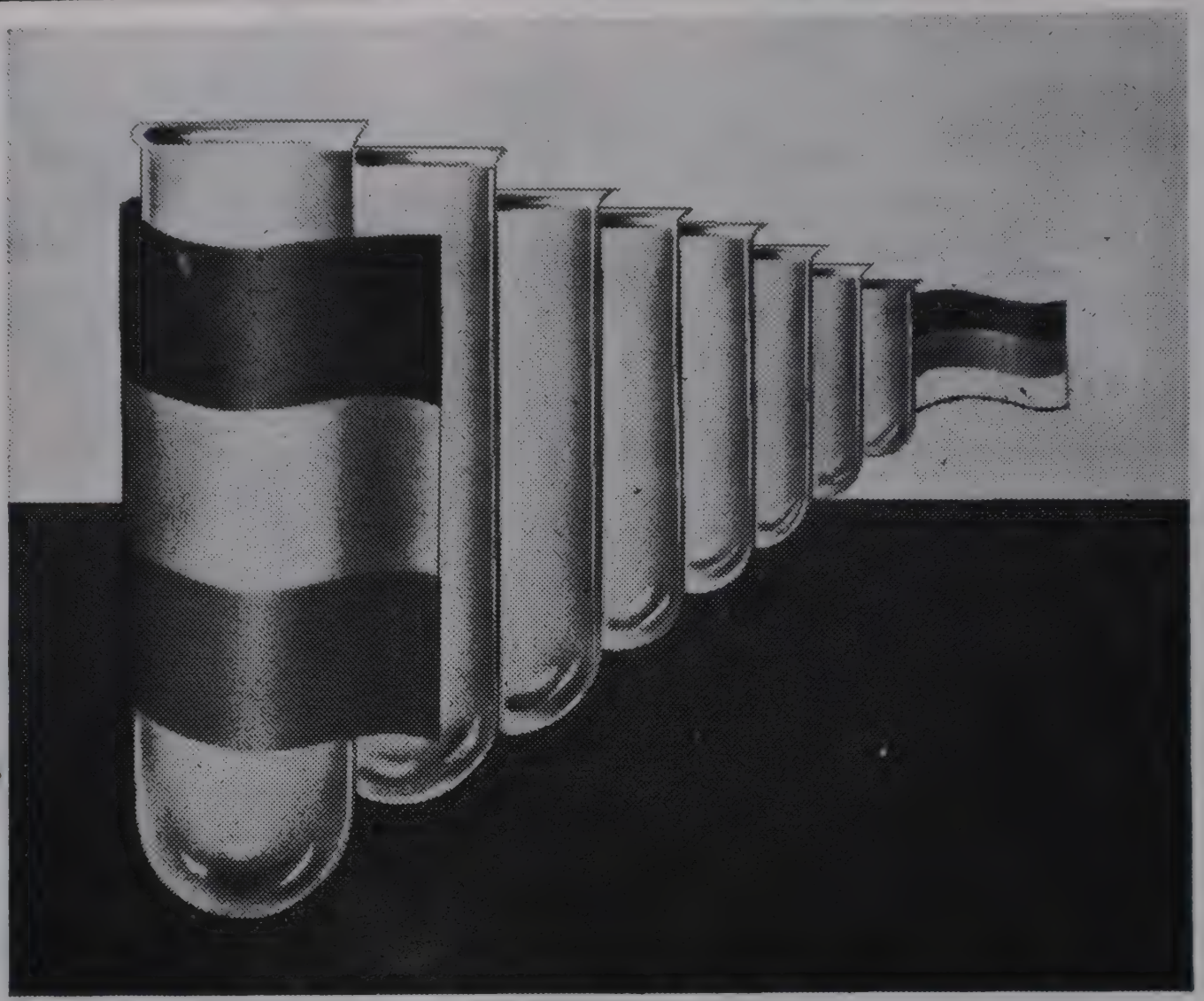

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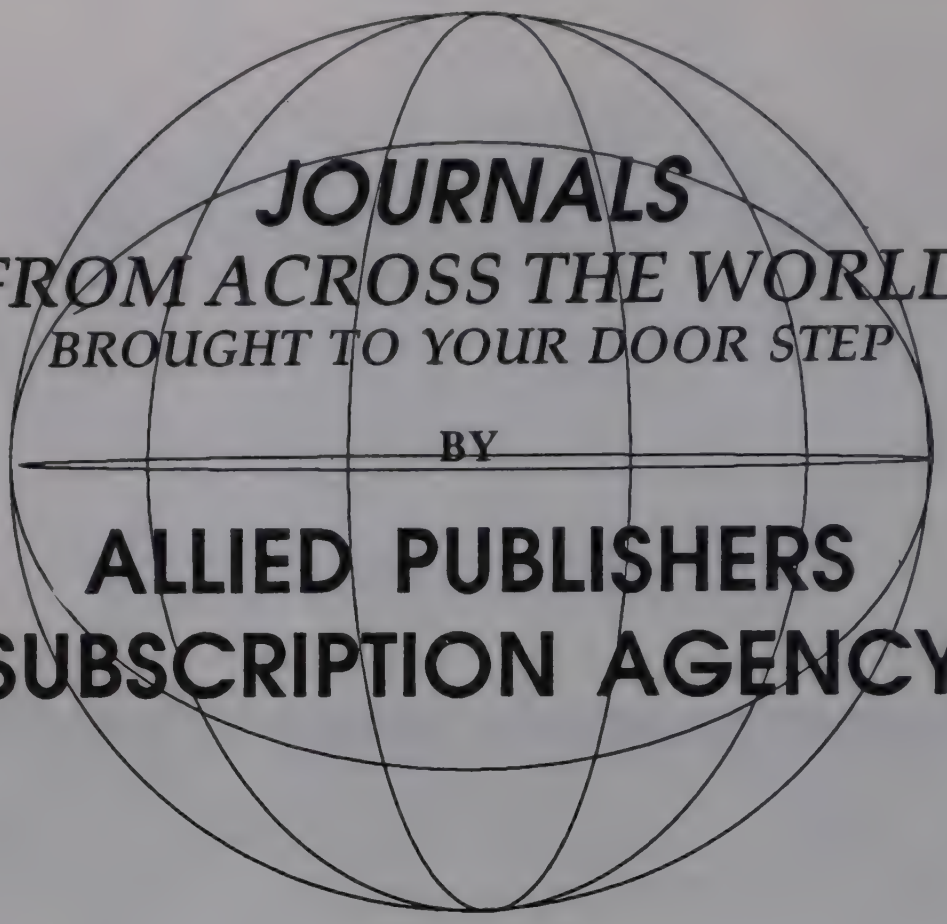

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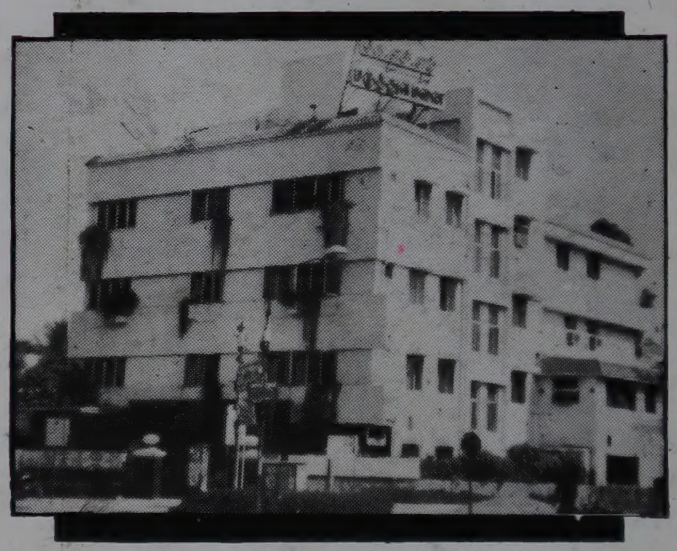

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